



1

## SEQUENCE LISTING

<110> MANNING, GERARD  
SUDARSANAM, SUCHA

<120> METHOD FOR SELECTIVELY INHIBITING FUNGAL GROWTH

<130> 034536/0323

<140> 10/618,581

<141> 2003-07-15

<150> 60/395,624

<151> 2002-07-15

<160> 42

<170> PatentIn Ver. 2.1

<210> 1

<211> 1064

<212> PRT

<213> *Saccharomyces cerevisiae*

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Ser Thr Met Ala Pro Ala Thr Leu Arg Met Met Gly Lys Ser Pro Gln  
35 40 45

Gln Gln Gln Gln Asn Thr Pro Leu Met Pro Pro Ala Asp Ile Lys  
50 55 60

Tyr Ala Asn Asn Gly Asn Ser His Gln Ala Glu Gln Lys Glu Arg Gln  
65 70 75 80

Val Glu Leu Glu Gly Lys Ser Arg Glu Asn Ala Pro Lys Pro Asn Thr  
85 90 95

Thr Ser Gln Ser Arg Val Ser Ser Gln Gly Met Pro Lys Gln Phe  
100 105 110

His Arg Lys Ser Leu Gly Asp Trp Glu Phe Val Glu Thr Val Gly Ala  
115 120 125

Gly Ser Met Gly Lys Val Lys Leu Ala Lys His Arg Tyr Thr Asn Glu  
130 135 140

Val Cys Ala Val Lys Ile Val Asn Arg Ala Thr Lys Ala Phe Leu His  
145 150 155 160

Lys Glu Gln Met Leu Pro Pro Lys Asn Glu Gln Asp Val Leu Glu  
165 170 175

Arg Gln Lys Lys Leu Glu Lys Glu Ile Ser Arg Asp Lys Arg Thr Ile  
 180 185 190  
 Arg Glu Ala Ser Leu Gly Gln Ile Leu Tyr His Pro His Ile Cys Arg  
 195 200 205  
 Leu Phe Glu Met Cys Thr Leu Ser Asn His Phe Tyr Met Leu Phe Glu  
 210 215 220  
 Tyr Val Ser Gly Gly Gln Leu Leu Asp Tyr Ile Ile Gln His Gly Ser  
 225 230 235 240  
 Ile Arg Glu His Gln Ala Arg Lys Phe Ala Arg Gly Ile Ala Ser Ala  
 245 250 255  
 Leu Ile Tyr Leu His Ala Asn Asn Ile Val His Arg Asp Leu Lys Ile  
 260 265 270  
 Glu Asn Ile Met Ile Ser Asp Ser Ser Glu Ile Lys Ile Ile Asp Phe  
 275 280 285  
 Gly Leu Ser Asn Ile Tyr Asp Ser Arg Lys Gln Leu His Thr Phe Cys  
 290 295 300  
 Gly Ser Leu Tyr Phe Ala Ala Pro Glu Leu Leu Lys Ala Asn Pro Tyr  
 305 310 315 320  
 Thr Gly Pro Glu Val Asp Val Trp Ser Phe Gly Val Val Leu Phe Val  
 325 330 335  
 Leu Val Cys Gly Lys Val Pro Phe Asp Asp Glu Asn Ser Ser Val Leu  
 340 345 350  
 His Glu Lys Ile Lys Gln Gly Lys Val Glu Tyr Pro Gln His Leu Ser  
 355 360 365  
 Ile Glu Val Ile Ser Leu Leu Ser Lys Met Leu Val Val Asp Pro Lys  
 370 375 380  
 Arg Arg Ala Thr Leu Lys Gln Val Val Glu His His Trp Met Val Arg  
 385 390 395 400  
 Gly Phe Asn Gly Pro Pro Pro Ser Tyr Leu Pro Lys Arg Val Pro Leu  
 405 410 415  
 Thr Ile Glu Met Leu Asp Ile Asn Val Leu Lys Glu Met Tyr Arg Leu  
 420 425 430  
 Glu Phe Ile Asp Asp Val Glu Glu Thr Arg Ser Val Leu Val Ser Ile  
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 Ile Thr Asp Pro Thr Tyr Val Leu Leu Ser Arg Gln Tyr Trp Thr Leu  
 450 455 460  
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 465 470 475 480

Ile Thr Glu Ser Phe Glu Asp Pro Thr Arg Ala Tyr His Pro Met Ile  
 485 490 495

Ser Ile Tyr Tyr Leu Thr Ser Glu Met Leu Asp Arg Lys His Ala Lys  
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Ile Arg Asn Gln Gln Gln Arg Gln Ser His Glu Asn Ile Glu Lys Leu  
 515 520 525

Ser Glu Ile Pro Glu Ser Val Lys Gln Arg Asp Val Glu Val Asn Thr  
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Thr Ala Met Lys Ser Glu Pro Glu Ala Thr Leu Ala Thr Lys Asp Thr  
 545 550 555 560

Ser Val Pro Phe Thr Pro Lys Asn Ser Asp Gly Thr Glu Pro Pro Leu  
 565 570 575

His Val Leu Ile Pro Pro Arg Leu Ala Met Pro Glu Gln Ala His Thr  
 580 585 590

Ser Pro Thr Ser Arg Lys Ser Ser Asp Asn Gln Arg Arg Glu Met Glu  
 595 600 605

Tyr Ala Leu Ser Pro Thr Pro Gln Gly Asn Asp Tyr Gln Gln Phe Arg  
 610 615 620

Val Pro Ser Thr Thr Gly Asp Pro Ser Glu Lys Ala Lys Phe Gly Asn  
 625 630 635 640

Ile Phe Arg Lys Leu Ser Gln Arg Arg Lys Lys Thr Ile Glu Gln Thr  
 645 650 655

Ser Val Asn Ser Asn Asn Ser Ile Asn Lys Pro Val Gln Lys Thr His  
 660 665 670

Ser Arg Ala Val Ser Asp Phe Val Pro Gly Phe Ala Lys Pro Ser Tyr  
 675 680 685

Asp Ser Asn Tyr Thr Met Asn Glu Pro Val Lys Thr Asn Asp Ser Arg  
 690 695 700

Gly Gly Asn Lys Gly Asp Phe Pro Ala Leu Pro Ala Asp Ala Glu Asn  
 705 710 715 720

Met Val Glu Lys Gln Arg Glu Lys Gln Ile Glu Glu Asp Ile Met Lys  
 725 730 735

Leu His Asp Ile Asn Lys Gln Asn Asn Glu Val Ala Lys Gly Ser Gly  
 740 745 750

Arg Glu Ala Tyr Ala Ala Gln Lys Phe Glu Gly Ser Asp Asp Asp Glu  
 755 760 765

Asn His Pro Leu Pro Pro Leu Asn Val Ala Lys Gly Arg Lys Leu His  
 770 775 780

Pro Ser Ala Arg Ala Lys Ser Val Gly His Ala Arg Arg Glu Ser Leu  
 785 790 795 800

Lys Tyr Met Arg Pro Pro Met Pro Ser Ser Ala Tyr Pro Gln Gln Glu  
 805 810 815

Leu Ile Asp Thr Gly Phe Leu Glu Ser Ser Asp Asp Asn Lys Ser Asp  
 820 825 830

Ser Leu Gly Asn Val Thr Ser Gln Thr Asn Asp Ser Val Ser Val His  
 835 840 845

Ser Val Asn Ala His Ile Asn Ser Pro Ser Val Glu Lys Glu Leu Thr  
 850 855 860

Asp Glu Glu Ile Leu Gln Glu Ala Ser Arg Ala Pro Ala Gly Ser Met  
 865 870 875 880

Pro Ser Ile Asp Phe Pro Arg Ser Leu Phe Leu Lys Gly Phe Phe Ser  
 885 890 895

Val Gln Thr Thr Ser Ser Lys Pro Leu Pro Ile Val Arg Tyr Lys Ile  
 900 905 910

Met Phe Val Leu Arg Lys Met Asn Ile Glu Phe Lys Glu Val Lys Gly  
 915 920 925

Gly Phe Val Cys Met Gln Arg Phe Ser Ser Asn Asn Val Ala Ala Lys  
 930 935 940

Arg Glu Gly Thr Pro Arg Ser Ile Met Pro Leu Ser His His Glu Ser  
 945 950 955 960

Ile Arg Arg Gln Gly Ser Asn Lys Tyr Ser Pro Ser Ser Pro Leu Thr  
 965 970 975

Thr Asn Ser Ile His Gln Arg Lys Thr Ser Ile Thr Glu Thr Tyr Gly  
 980 985 990

Asp Asp Lys His Ser Gly Thr Ser Leu Glu Asn Ile His Gln Gln Gly  
 995 1000 1005

Asp Gly Ser Glu Gly Met Thr Thr Glu Lys Glu Pro Ile Lys Phe  
 1010 1015 1020

Glu Ile His Ile Val Lys Val Arg Ile Val Gly Leu Ala Gly Val His  
 1025 1030 1035 1040

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&lt;210&gt; 2

&lt;211&gt; 1147

&lt;212&gt; PRT

<213> *Saccharomyces cerevisiae*

&lt;400&gt; 2

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Pro | Asn | Pro | Asn | Thr | Ala | Asp | Tyr | Leu | Val | Asn | Pro | Asn | Phe | Arg |
| 1   |     |     |     |     |     |     |     |     | 5   |     | 10  |     |     |     | 15  |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Ser | Lys | Gly | Gly | Ser | Leu | Ser | Pro | Thr | Pro | Glu | Ala | Phe | Asn | Asp |
|     |     |     |     |     |     |     |     |     | 20  |     | 25  |     |     |     | 30  |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Arg | Val | Ala | Ala | Pro | Ala | Thr | Leu | Arg | Met | Met | Gly | Lys | Gln | Ser |
|     |     |     |     |     |     |     |     |     | 35  |     | 40  |     |     |     | 45  |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
| Gly | Pro | Arg | Asn | Asp | Gln | Gln | Ala | Pro | Leu | Met | Pro | Pro | Ala | Asp |    |
|     |     |     |     |     |     |     |     |     | 50  |     | 55  |     |     |     | 60 |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Lys | Gln | Gly | Lys | Glu | Gln | Ala | Ala | Gln | Arg | Gln | Asn | Asp | Ala | Ser |
|     |     |     |     |     |     |     |     |     | 65  |     | 70  |     |     |     | 80  |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Pro | Asn | Gly | Ala | Val | Glu | Leu | Arg | Gln | Phe | His | Arg | Arg | Ser | Leu |
|     |     |     |     |     |     |     |     |     | 85  |     | 90  |     |     |     | 95  |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Asp | Trp | Glu | Phe | Leu | Glu | Thr | Val | Gly | Ala | Gly | Ser | Met | Gly | Lys |
|     |     |     |     |     |     |     |     | 100 |     | 105 |     |     |     |     | 110 |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Lys | Leu | Val | Lys | His | Arg | Gln | Thr | Lys | Glu | Ile | Cys | Val | Ile | Lys |
|     |     |     |     |     |     |     |     |     | 115 |     | 120 |     |     |     | 125 |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Val | Asn | Arg | Ala | Ser | Lys | Ala | Tyr | Leu | His | Lys | Gln | His | Ser | Leu |
|     |     |     |     |     |     |     |     |     | 130 |     | 135 |     |     |     | 140 |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Ser | Pro | Lys | Asn | Glu | Ser | Glu | Ile | Leu | Glu | Arg | Gln | Lys | Arg | Leu |
|     |     |     |     |     |     |     |     |     | 145 |     | 150 |     |     |     | 160 |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Lys | Glu | Ile | Ala | Arg | Asp | Lys | Arg | Thr | Val | Arg | Glu | Ala | Ser | Leu |
|     |     |     |     |     |     |     |     |     | 165 |     | 170 |     |     |     | 175 |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Gln | Ile | Leu | Tyr | His | Pro | His | Ile | Cys | Arg | Leu | Phe | Glu | Met | Cys |
|     |     |     |     |     |     |     |     |     | 180 |     | 185 |     |     |     | 190 |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Met | Ser | Asn | His | Phe | Tyr | Met | Leu | Phe | Glu | Tyr | Val | Ser | Gly | Gly |
|     |     |     |     |     |     |     |     |     | 195 |     | 200 |     |     |     | 205 |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Leu | Leu | Asp | Tyr | Ile | Ile | Gln | His | Gly | Ser | Leu | Lys | Glu | His | His |
|     |     |     |     |     |     |     |     |     | 210 |     | 215 |     |     |     | 220 |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Arg | Lys | Phe | Ala | Arg | Gly | Ile | Ala | Ser | Ala | Leu | Gln | Tyr | Leu | His |
|     |     |     |     |     |     |     |     |     | 225 |     | 230 |     |     |     | 240 |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Asn | Asn | Ile | Val | His | Arg | Asp | Leu | Lys | Ile | Glu | Asn | Ile | Met | Ile |
|     |     |     |     |     |     |     |     |     | 245 |     | 250 |     |     |     | 255 |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ser | Ser | Gly | Glu | Ile | Lys | Ile | Ile | Asp | Phe | Gly | Leu | Ser | Asn | Ile |
|     |     |     |     |     |     |     |     |     | 260 |     | 265 |     |     |     | 270 |

Phe Asp Tyr Arg Lys Gln Leu His Thr Phe Cys Gly Ser Leu Tyr Phe  
 275 280 285  
 Ala Ala Pro Glu Leu Leu Lys Ala Gln Pro Tyr Thr Gly Pro Glu Val  
 290 295 300  
 Asp Ile Trp Ser Phe Gly Ile Val Leu Tyr Val Leu Val Cys Gly Lys  
 305 310 315 320  
 Val Pro Phe Asp Asp Glu Asn Ser Ser Ile Leu His Glu Lys Ile Lys  
 325 330 335  
 Lys Gly Lys Val Asp Tyr Pro Ser His Leu Ser Ile Glu Val Ile Ser  
 340 345 350  
 Leu Leu Thr Arg Met Ile Val Val Asp Pro Leu Arg Arg Ala Thr Leu  
 355 360 365  
 Lys Asn Val Val Glu His Pro Trp Met Asn Arg Gly Tyr Asp Phe Lys  
 370 375 380  
 Ala Pro Ser Tyr Val Pro Asn Arg Val Pro Leu Thr Pro Glu Met Ile  
 385 390 395 400  
 Asp Ser Gln Val Leu Lys Glu Met Tyr Arg Leu Glu Phe Ile Asp Asp  
 405 410 415  
 Ile Glu Asp Thr Arg Arg Ser Leu Ile Arg Leu Val Thr Glu Lys Glu  
 420 425 430  
 Tyr Ile Gln Leu Ser Gln Glu Tyr Trp Asp Lys Leu Ser Asn Ala Lys  
 435 440 445  
 Gly Leu Ser Ser Ser Leu Asn Asn Asn Tyr Leu Asn Ser Thr Ala Gln  
 450 455 460  
 Gln Thr Leu Ile Gln Asn His Ile Thr Ser Asn Pro Ser Gln Ser Gly  
 465 470 475 480  
 Tyr Asn Glu Pro Asp Ser Asn Phe Glu Asp Pro Thr Leu Ala Tyr His  
 485 490 495  
 Pro Leu Leu Ser Ile Tyr His Leu Val Ser Glu Met Val Ala Arg Lys  
 500 505 510  
 Leu Ala Lys Leu Gln Arg Arg Gln Ala Leu Ala Leu Gln Ala Gln Ala  
 515 520 525  
 Gln Gln Arg Gln Gln Gln Gln Val Ala Leu Gly Thr Lys Val Ala  
 530 535 540  
 Leu Asn Asn Asn Ser Pro Asp Ile Met Thr Lys Met Arg Ser Pro Gln  
 545 550 555 560  
 Lys Glu Val Val Pro Asn Pro Gly Ile Phe Gln Val Pro Ala Ile Gly  
 565 570 575

Thr Ser Gly Thr Ser Asn Asn Thr Asn Thr Ser Asn Lys Pro Pro Leu  
 580 585 590  
 His Val Met Val Pro Pro Lys Leu Thr Ile Pro Glu Gln Ala His Thr  
 595 600 605  
 Ser Pro Thr Ser Arg Lys Ser Ser Asp Ile His Thr Glu Leu Asn Gly  
 610 615 620  
 Val Leu Lys Ser Thr Pro Val Pro Val Ser Gly Glu Tyr Gln Gln Arg  
 625 630 635 640  
 Ser Ala Ser Pro Val Val Gly Glu His Gln Glu Lys Asn Thr Ile Gly  
 645 650 655  
 Gly Ile Phe Arg Arg Ile Ser Gln Ser Gly Gln Ser Gln His Pro Thr  
 660 665 670  
 Arg Gln Gln Glu Pro Leu Pro Glu Arg Glu Pro Pro Thr Tyr Met Ser  
 675 680 685  
 Lys Ser Asn Glu Ile Ser Ile Lys Val Pro Lys Ser His Ser Arg Thr  
 690 695 700  
 Ile Ser Asp Tyr Ile Pro Ser Ala Arg Arg Tyr Pro Ser Tyr Val Pro  
 705 710 715 720  
 Asn Ser Val Asp Val Lys Gln Lys Pro Ala Lys Asn Thr Thr Ile Ala  
 725 730 735  
 Pro Pro Ile Arg Ser Val Ser Gln Lys Gln Asn Ser Asp Leu Pro Ala  
 740 745 750  
 Leu Pro Gln Asn Ala Glu Leu Ile Val Gln Lys Gln Arg Gln Lys Leu  
 755 760 765  
 Leu Gln Glu Asn Leu Asp Lys Leu Gln Ile Asn Asp Asn Asp Asn Asn  
 770 775 780  
 Asn Val Asn Ala Val Val Asp Gly Ile Asn Asn Asp Asn Ser Asp His  
 785 790 795 800  
 Tyr Leu Ser Val Pro Lys Gly Arg Lys Leu His Pro Ser Ala Arg Ala  
 805 810 815  
 Lys Ser Val Gly His Ala Arg Arg Glu Ser Leu Lys Phe Thr Arg Pro  
 820 825 830  
 Pro Ile Pro Ala Ala Leu Pro Pro Ser Asp Met Thr Asn Asp Asn Gly  
 835 840 845  
 Phe Leu Gly Glu Ala Asn Lys Glu Arg Tyr Asn Pro Val Ser Ser Asn  
 850 855 860  
 Phe Ser Thr Val Pro Glu Asp Ser Thr Thr Tyr Ser Asn Asp Thr Asn  
 865 870 875 880

Asn Arg Leu Thr Ser Val Tyr Ser Gln Glu Leu Thr Glu Lys Gln Ile  
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 Leu Glu Glu Ala Ser Lys Ala Pro Pro Gly Ser Met Pro Ser Ile Asp  
                   900                     905                  910  
  
 Tyr Pro Lys Ser Met Phe Leu Lys Gly Phe Phe Ser Val Gln Thr Thr  
                   915                     920                  925  
  
 Ser Ser Lys Pro Leu Pro Ile Val Arg His Asn Ile Ile Ser Val Leu  
                   930                     935                  940  
  
 Thr Arg Met Asn Ile Asp Phe Lys Glu Val Lys Gly Gly Phe Ile Cys  
                   945                     950                  955                  960  
  
 Val Gln Gln Arg Pro Ser Ile Glu Thr Ala Ala Val Pro Val Ile Thr  
                   965                     970                  975  
  
 Thr Thr Gly Val Gly Leu Asp Ser Gly Lys Ala Met Asp Leu Gln Asn  
                   980                     985                  990  
  
 Ser Leu Asp Ser Gln Leu Ser Ser Ser Tyr His Ser Thr Ala Ser Ser  
                   995                     1000                 1005  
  
 Ala Ser Arg Asn Ser Ser Ile Lys Arg Gln Gly Ser Tyr Lys Arg Gly  
                   1010                    1015                 1020  
  
 Gln Asn Asn Ile Pro Leu Thr Pro Leu Ala Thr Asn Thr His Gln Arg  
                   1025                    1030                 1035                  1040  
  
 Asn Ser Ser Ile Pro Met Ser Pro Asn Tyr Gly Asn Gln Ser Asn Gly  
                   1045                    1050                 1055  
  
 Thr Ser Gly Glu Leu Ser Ser Met Ser Leu Asp Tyr Val Gln Gln Gln  
                   1060                    1065                 1070  
  
 Asp Asp Ile Leu Thr Thr Ser Arg Ala Gln Asn Ile Asn Asn Val Asn  
                   1075                    1080                 1085  
  
 Gly Gln Thr Glu Gln Thr Asn Thr Ser Gly Ile Lys Glu Arg Pro Pro  
                   1090                    1095                 1100  
  
 Ile Lys Phe Glu Ile His Ile Val Lys Val Arg Ile Val Gly Leu Ala  
                   1105                    1110                 1115                  1120  
  
 Gly Val His Phe Lys Lys Val Ser Gly Asn Thr Trp Leu Tyr Lys Glu  
                   1125                    1130                 1135  
  
 Leu Ala Ser Tyr Ile Leu Lys Glu Leu Asn Leu  
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His Gln Arg Ser Ile Ser Asp Phe Val Gly Thr Ala Gly Pro Gly Arg  
35 40 45  
Gln Val Gly Asn Trp Ile Ile Lys Lys Thr Ile Gly Ala Gly Ser Met  
50 55 60  
Gly Lys Val Lys Leu Val Val Asn Ile Leu Thr Gly Glu Lys Ala Ala  
65 70 75 80  
Leu Lys Met Ile Pro Phe Thr Pro Asn Asn Thr Ser Gln Thr Val Arg  
85 90 95  
Val Gln Arg Glu Ala Leu Leu Gly Arg Leu Leu Arg His Pro Asn Ile  
100 105 110  
Cys Arg Val Ile Asp Cys Ile Arg Thr Pro Ala Cys Thr Tyr Ile Leu  
115 120 125  
Phe Glu Tyr Val Pro Gly Gly Gln Leu Leu Glu Tyr Ile Leu Ala Arg  
130 135 140  
Gly Lys Leu Asp Glu Asp Leu Ala Arg Ser Phe Ala Met Gln Leu Ile  
145 150 155 160  
Asn Ala Leu Val Tyr Leu His Lys Asn Phe Ile Val His Arg Asp Leu  
165 170 175  
Lys Ile Glu Asn Val Leu Leu Thr Gln Asp Ser Arg Gln Val Lys Leu  
180 185 190  
Ile Asp Phe Gly Leu Ser Asn Phe Tyr Ser Lys Asp Asp Leu Leu Arg  
195 200 205  
Thr Tyr Cys Gly Ser Leu Tyr Phe Ala Ala Pro Glu Leu Leu Asp Ala  
210 215 220  
Lys Pro Tyr Ile Gly Pro Glu Val Asp Val Trp Ser Leu Gly Val Val  
225 230 235 240  
Ile Tyr Val Met Val Cys Gly Arg Val Pro Phe Asp Asp Val Ser Val  
245 250 255  
Pro Met Leu His Ser Lys Ile Lys Ser Gly Lys Leu Glu Phe Pro Ser  
260 265 270  
Tyr Ile Ser Glu Asp Cys Cys Ser Leu Ile Ala Ala Met Leu Asn Val  
275 280 285  
Asn Pro Arg Lys Arg Cys Ser Leu Glu Gln Ala Ala Lys Phe Pro Trp  
290 295 300

Leu Lys Lys Asn Ser Phe Cys Leu Tyr Leu Pro Ile Pro Leu Thr Ser  
 305                   310                   315                   320  
 Ile Pro Ser Thr Pro Ser Ile Arg Ser His Val Phe Lys Pro Pro Phe  
 325                   330                   335  
 Asn Leu Lys Val Leu Gln Leu Leu His Glu His Gly Leu Ala Ser Ile  
 340                   345                   350  
 Pro Glu Leu Lys His Glu Leu Tyr Met Ala Tyr Ile Glu Arg Lys Thr  
 355                   360                   365                   /  
 Thr Ser Leu Val Cys Leu Tyr Leu Leu Gly Val Glu Ser Leu Ala Pro  
 370                   375                   380  
 Ala Leu Arg Ile Pro Thr Ala Leu Pro Pro Val Tyr Ser Arg His Gln  
 385                   390                   395                   400  
 Arg His His Ser Glu Ile Leu Gly Ala Met Asp Leu Thr Glu Lys Ile  
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 Thr Ala Met Gln Cys Pro Pro  
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 20               25               30  
 Arg His His Asn Leu Val Asp Ala Phe Met Gln Ser Pro Ser Tyr Ser  
 35               40               45  
 Thr Gln Pro Lys Ser Ala Val Glu Pro Leu Gly Leu Ser Phe Ser Pro  
 50               55               60  
 Gly Tyr Ile Ser Pro Ser Ser Gln Ser Pro His His Gly Pro Val Arg  
 65               70               75               80  
 Ser Pro Ser Ser Arg Lys Pro Leu Pro Ala Ser Pro Ser Arg Thr Arg  
 85               90               95  
 Asp His Ser Leu Arg Val Pro Val Ser Gly His Ser Tyr Ser Ala Asp  
 100              105              110  
 Glu Lys Pro Arg Glu Arg Arg Lys Val Ile Gly Asn Tyr Val Leu Gly  
 115              120              125  
 Lys Thr Ile Gly Ala Gly Ser Met Gly Lys Val Lys Val Ala His His  
 130              135              140

Leu Lys Thr Gly Glu Gln Phe Ala Ile Lys Ile Val Thr Arg Leu His  
 145 150 155 160

Pro Asp Ile Thr Lys Ala Lys Ala Ala Ser Ala Glu Ala Thr Lys  
 165 170 175

Ala Ala Gln Ser Glu Lys Asn Lys Glu Ile Arg Thr Val Arg Glu Ala  
 180 185 190

Ala Leu Ser Thr Leu Leu Arg His Pro Tyr Ile Cys Glu Ala Arg Asp  
 195 200 205

Val Tyr Ile Thr Asn Ser His Tyr Tyr Met Val Phe Glu Phe Val Asp  
 210 215 220

Gly Gly Gln Met Leu Asp Tyr Ile Ile Ser His Gly Lys Leu Lys Glu  
 225 230 235 240

Lys Gln Ala Arg Lys Phe Val Arg Gln Ile Gly Ser Ala Leu Ser Tyr  
 245 250 255

Leu His Gln Asn Ser Val Val His Arg Asp Leu Lys Ile Glu Asn Ile  
 260 265 270

Leu Ile Ser Lys Thr Gly Asp Ile Lys Ile Ile Asp Phe Gly Leu Ser  
 275 280 285

Asn Leu Tyr Arg Arg Gln Ser Arg Leu Arg Thr Phe Cys Gly Ser Leu  
 290 295 300

Tyr Phe Ala Ala Pro Glu Leu Leu Asn Ala Gln Pro Tyr Ile Gly Pro  
 305 310 315 320

Glu Val Asp Val Trp Ser Phe Gly Ile Val Leu Tyr Val Leu Val Cys  
 325 330 335

Gly Lys Val Pro Phe Asp Asp Gln Asn Met Ser Ala Leu His Ala Lys  
 340 345 350

Ile Lys Lys Gly Thr Val Glu Tyr Pro Ser Tyr Leu Ser Ser Asp Cys  
 355 360 365

Lys Gly Leu Leu Ser Arg Met Leu Val Thr Asp Pro Leu Lys Arg Ala  
 370 375 380

Thr Leu Glu Glu Val Leu Asn His Pro Trp Met Ile Arg Asn Tyr Glu  
 385 390 395 400

Gly Pro Pro Ala Ser Phe Ala Pro Glu Arg Ser Pro Ile Thr Leu Pro  
 405 410 415

Leu Asp Pro Glu Ile Ile Arg Glu Met Asn Gly Phe Asp Phe Gly Pro  
 420 425 430

Pro Glu Lys Ile Val Arg Glu Leu Thr Lys Val Ile Ser Ser Glu Ala  
 435 440 445

Tyr Gln Ser Leu Ala Lys Thr Gly Phe Tyr Ser Gly Pro Asn Ser Ala  
 450 455 460  
 Asp Lys Lys Lys Ser Phe Phe Glu Phe Arg Ile Arg His Ala Ala His  
 465 470 475 480  
 Asp Ile Glu Asn Pro Ile Leu Pro Ser Leu Ser Met Asn Thr Asp Ile  
 485 490 495  
 Tyr Asp Ala Phe His Pro Leu Ile Ser Ile Tyr Tyr Leu Val Ser Glu  
 500 505 510  
 Arg Arg Val Tyr Glu Lys Gly Gly Asn Trp Asn Arg Ile Ala Lys Thr  
 515 520 525  
 Pro Val Ser Ser Val Pro Ser Ser Pro Val Gln Pro Thr Ser Tyr Asn  
 530 535 540  
 Arg Thr Leu Pro Pro Met Pro Glu Val Val Ala Tyr Lys Gly Asp Glu  
 545 550 555 560  
 Glu Ser Pro Arg Val Ser Arg Asn Thr Ser Leu Ala Arg Arg Lys Pro  
 565 570 575  
 Leu Pro Asp Thr Glu Ser His Ser Pro Ser Pro Ser Ala Thr Ser Ser  
 580 585 590  
 Ile Lys Lys Asn Pro Ser Ser Ile Phe Arg Arg Phe Ser Ser Arg Arg  
 595 600 605  
 Lys Gln Asn Lys Ser Ser Thr Ser Thr Leu Gln Ile Ser Ala Pro Leu  
 610 615 620  
 Glu Thr Ser Gln Ser Pro Pro Thr Pro Arg Thr Lys Pro Ser His Lys  
 625 630 635 640  
 Pro Pro Val Ser Tyr Lys Asn Lys Leu Val Thr Gln Ser Ala Ile Gly  
 645 650 655  
 Arg Ser Thr Ser Val Arg Glu Gly Arg Tyr Ala Gly Ile Ser Ser Gln  
 660 665 670  
 Met Asp Ser Leu Asn Met Asp Ser Thr Gly Pro Ser Ala Ser Asn Met  
 675 680 685  
 Ala Asn Ala Pro Pro Ser Val Arg Asn Asn Arg Val Leu Asn Pro Arg  
 690 695 700  
 Gly Ala Ser Leu Gly His Gly Arg Met Ser Thr Ser Thr Thr Asn Arg  
 705 710 715 720  
 Gln Lys Gln Ile Leu Asn Glu Thr Met Gly Asn Pro Val Asp Lys Asn  
 725 730 735  
 Ser Thr Ser Pro Ser Lys Ser Thr Asp Lys Leu Asp Pro Ile Lys Pro  
 740 745 750

Val Phe Leu Lys Gly Leu Phe Ser Val Ser Thr Thr Ser Thr Lys Ser  
 755 760 765  
 Thr Glu Ser Ile Gln Arg Asp Leu Ile Arg Val Met Gly Met Leu Asp  
 770 775 780  
 Ile Glu Tyr Lys Glu Ile Lys Gly Gly Tyr Ala Cys Leu Tyr Lys Pro  
 785 790 795 800  
 Gln Gly Ile Arg Thr Pro Thr Lys Ser Thr Ser Val His Thr Arg Arg  
 805 810 815  
 Lys Pro Ser Tyr Gly Ser Asn Ser Thr Thr Asp Ser Tyr Gly Ser Val  
 820 825 830  
 Pro Asp Thr Val Pro Leu Asp Asp Asn Gly Glu Ser Pro Ala Ser Asn  
 835 840 845  
 Leu Ala Phe Glu Ile Tyr Ile Val Lys Val Pro Ile Leu Ser Leu Arg  
 850 855 860  
 Gly Val Ser Phe His Arg Ile Ser Gly Asn Ser Trp Gln Tyr Lys Thr  
 865 870 875 880  
 Leu Ala Ser Arg Ile Leu Asn Glu Leu Lys Leu  
 885 890

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 <211> 1212  
 <212> PRT  
 <213> Candida albicans

<400> 5  
 Met Asn Asn Gln Asp Pro Asp Ser Gln Tyr His Asn Lys Lys Val Tyr  
 1 5 10 15  
 Pro Pro Asn Leu Pro Ser Ile Pro Pro Pro Gln Gln Pro Leu Ser  
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 Gly Arg Pro Ala Thr Pro Arg Met Leu Arg Ser Ile Ser Gly Thr Leu  
 35 40 45  
 Lys Ser Lys Thr Glu Leu Ala His Ser Asp Lys Gly Gln Glu Ser Asn  
 50 55 60  
 Asn Glu Thr Lys Asn Ser Asn Pro His Tyr Val Pro Asp Thr His  
 65 70 75 80  
 Thr Arg Gln Pro Pro Pro Glu Ser Leu Lys Ser Asn Ile Gln Ala Pro  
 85 90 95  
 Thr Ala Val His Gly Asn Gln Gln Lys Gly Ser Leu Leu Pro Pro Pro  
 100 105 110  
 Ser Ile Pro Asn Pro Asn Thr Met Lys Pro Ala Pro Thr Pro Thr Gly  
 115 120 125

Val Asp Gln Pro Pro Ala Lys Gln Lys Pro Ser Pro Ala Pro Lys Gln  
 130 135 140

Pro Gln Pro Gln Gln Gln Gln Gln Gln Gln Gln Phe His  
 145 150 155 160

Arg Lys Ser Ile Gly Asp Trp Asn Phe Val Lys Thr Ile Gly Ala Gly  
 165 170 175

Ser Met Gly Lys Val Lys Leu Ala Gln His Asn Ala Thr His Glu Ile  
 180 185 190

Cys Ala Val Lys Ile Ile Pro Arg Ala Ala Lys Leu Tyr Gln Arg Ala  
 195 200 205

His Ala Asn Asp Pro Pro Pro Gln Thr Thr Gln Glu Ala Ala Gln Arg  
 210 215 220

His Lys Glu Phe Glu Lys Glu Val Ala Arg Asp Arg Arg Thr Ile Arg  
 225 230 235 240

Glu Gly Ala Leu Gly Arg Leu Leu Tyr His Pro Phe Ile Cys Arg Leu  
 245 250 255

Tyr Glu Met Val Pro Met Thr Asn His Tyr Tyr Met Leu Phe Glu Tyr  
 260 265 270

Ile Glu Gly Gly Gln Met Leu Asp Tyr Ile Val Ala His Gly Ser Leu  
 275 280 285

Lys Glu Arg His Ala Arg Lys Phe Ala Arg Gly Ile Ala Ser Ala Leu  
 290 295 300

Asp Tyr Cys His Arg Asn Asn Val Val His Arg Asp Leu Lys Ile Glu  
 305 310 315 320

Asn Ile Met Ile Asn Glu Lys Gly Asp Ile Lys Ile Ile Asp Phe Gly  
 325 330 335

Leu Ser Asn Leu Tyr Ala Pro Lys Asn Leu Leu Lys Thr Tyr Cys Gly  
 340 345 350

Ser Leu Tyr Phe Ala Ala Pro Glu Leu Leu Ser Ala Lys Pro Tyr Ile  
 355 360 365

Gly Pro Glu Val Asp Val Trp Ser Phe Gly Val Val Leu Tyr Val Leu  
 370 375 380

Val Cys Gly Lys Val Pro Phe Asp Asp Gln Ser Val Ser Val Leu His  
 385 390 395 400

Glu Lys Ile Lys Lys Gly Asn Val Glu Tyr Pro Ala Phe Leu Ser Arg  
 405 410 415

Glu Cys Val Ser Leu Leu Ser Arg Met Leu Val Val Asp Pro Thr Lys  
 420 425 430

Arg Ala Ser Leu Tyr Glu Val Cys Ser His Pro Trp Met Asn Lys Gly  
 435 440 445  
 Tyr Asp Tyr Lys Val Asn Asn Tyr Leu Pro Arg Arg Glu Pro Leu Arg  
 450 455 460  
 Leu Pro Leu Asp Pro Glu Ile Ile Lys Thr Ile Ala Asn Phe Glu Leu  
 465 470 475 480  
 Gly Thr Val Gln Gly Val Ala Asp Glu Leu Thr Ser Ile Leu Thr Ser  
 485 490 495  
 Val Glu Tyr Gln Met Ser Cys Glu Asn Trp Tyr Lys Ile Thr Glu Thr  
 500 505 510  
 Gly Arg Glu Tyr Ala Ser Ser Gln Asn Ala Gln Ile Leu Pro Asp Pro  
 515 520 525  
 Thr Gly Gly Phe His Pro Leu Val Ser Ile Tyr Tyr Leu Val Asp Glu  
 530 535 540  
 Met Arg Lys Arg Lys Lys Ala Lys Glu Glu Ala Leu Lys Ala Gln Arg  
 545 550 555 560  
 Arg Ala Gln Val Pro Thr Ile Ala Val Pro Thr Pro Lys Gln Gln Gln  
 565 570 575  
 Gln Gln Gln Pro Gln Pro Ala Gln Pro Gln Pro Gln Pro Gln Pro Glu  
 580 585 590  
 Val Ser Gln Pro Leu Pro Glu Pro Lys Pro Val Pro Pro Glu Glu Ile  
 595 600 605  
 Ile Asn Pro Ala Val Ala Thr Gln Ala Gln Ala Asn Met Thr Ala Pro  
 610 615 620  
 Lys Ile Val Glu Thr Phe Ser Glu Thr Pro Gln Arg Thr Leu Asp Pro  
 625 630 635 640  
 Ser Lys Gln Ser Val Asp Glu Lys Pro Ser Ala Pro Gly Pro Ser Ile  
 645 650 655  
 Ala Val Pro Glu Gln Ala His Thr Thr Ser Val Pro Ser Ser Phe Val  
 660 665 670  
 Lys Thr Gln Thr Ser Ile Asp Glu Asp Gln Leu Ser Ile Pro Glu Gln  
 675 680 685  
 Gln Ser Pro Arg Thr Ser Thr Pro Gln Thr Leu Asp Pro Ala Lys Val  
 690 695 700  
 Val Gly Gly Ser Ser Gly Ser Ala Ile Ser Ala Pro Asn Ala Gly Ser  
 705 710 715 720  
 Gly Ala Gly Phe Asn Ser Leu Leu Arg Arg Leu Ser Ser Lys Lys Tyr  
 725 730 735

Lys Gly Ala Ser Ser Pro Lys Arg Ser Thr Ser Pro Ser Pro Asn Val  
 740 745 750  
 Glu Gly Leu Ser Pro Gln Pro Thr Lys Ala Asp Pro Met Val Arg Arg  
 755 760 765  
 Gly Val Ser Met Lys Val Thr Ala Lys Glu Lys Gln Thr Asn Thr Arg  
 770 775 780  
 Pro Pro Lys Ser Glu Leu Ile Lys Lys Lys Pro Gln His Gly Arg Ser  
 785 790 795 800  
 Ser Ser Thr Ser Asn Lys Met Gln Gly Phe Ile Pro Val Glu Tyr Leu  
 805 810 815  
 Pro Pro Leu Pro Thr Ile Asp Thr Asn Thr Asn Thr Ile Val Ser Asp  
 820 825 830  
 Gly Ala Lys Gln Gln Asn Leu Thr Val Pro Ser Thr Ala Arg His Met  
 835 840 845  
 His Pro Thr Ala Arg Ala Lys Ser Val Gly Gly His Met Arg Lys  
 850 855 860  
 Asp Ser Tyr Gly Arg Val Ser His Gly Ser Gln Asn Pro Leu Pro Pro  
 865 870 875 880  
 Leu Pro Thr Ser Met Ala Ser Gln Asn Ser Gln Glu Val Val Gly Lys  
 885 890 895  
 Asp Thr Ser Glu Gly Phe Phe Asp Asp Val Gln Leu Asp Asp Val Gly  
 900 905 910  
 Tyr Gln Glu Val Pro Gln Leu Thr Glu Ser Glu Ile Ile Glu Gln Tyr  
 915 920 925  
 Asn Ile Ser Lys Pro Asn Ser Met Pro Ser Ile Glu His Cys Lys Thr  
 930 935 940  
 Leu Phe Leu Lys Gly Phe Phe Ser Val Gln Thr Thr Ser Ala Lys Pro  
 945 950 955 960  
 Leu Pro Val Ile Arg Tyr Asn Ile Ile Asn Val Leu Ser Lys Leu Gly  
 965 970 975  
 Val Lys Phe Gln Glu Val Lys Gly Gly Phe Val Cys Met His Thr Pro  
 980 985 990  
 Ser Val Gln Pro Ser His Ser Asn Glu Leu Asp Glu Glu Asn Lys Leu  
 995 1000 1005  
 Tyr Gly Asp Ala Phe Lys Ser Lys Ser Ser Asp Ser Phe Glu Ala Ala  
 1010 1015 1020  
 Glu Pro Glu Gly Ser Lys Thr Pro Ser Arg Gln Pro Ser Leu Gln Leu  
 1025 1030 1035 1040

Pro Ser His Thr Pro Thr Thr Pro Ser Gly Pro Lys Ser His Lys Ser  
 1045 1050 1055  
 Ser Asn Ser Ile Gly Ser Ile Gly Gly Asn Val Pro Arg Arg Lys Phe  
 1060 1065 1070  
 Ser Ile Gly Asn Ala Phe Asn Thr Tyr Arg Lys Lys Asn Gly Ser Gln  
 1075 1080 1085  
 Val Met Met Pro Pro Asn Thr Pro Ala Thr Ala Lys Val Ile His Gly  
 1090 1095 1100  
 Leu Tyr Asp Asp Asp Asp Lys Glu Arg Asn Gly Glu Asp Asp Asp Asp  
 1105 1110 1115 1120  
 Glu Asp Asp Tyr Gly Tyr Asp Asp Ser Ala Asp Ser Leu Asn Gly Tyr  
 1125 1130 1135  
 Gly Gly Gly Ser Asp Met Leu Ile Ser Ser Arg Ile Glu Gln Arg Ala  
 1140 1145 1150  
 Lys His Gln Arg Thr Val Ser Ser Ser Gln Lys Ala Ser Lys Ser  
 1155 1160 1165  
 Pro Leu Lys Phe Glu Ile His Ile Val Lys Val Pro Leu Val Gly Leu  
 1170 1175 1180  
 Tyr Gly Val Gln Phe Lys Lys Ile Leu Gly Asn Thr Trp Asn Tyr Lys  
 1185 1190 1195 1200  
 Thr Leu Ala Ser Gln Ile Leu Asn Glu Met Asn Leu  
 1205 1210

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 <211> 800  
 <212> PRT  
 <213> *Saccharomyces cerevisiae*

<400> 6  
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 Asp Arg Asp Arg His Ser Leu Gln Arg Asn Asn Glu Ile Leu His Pro  
 20 25 30  
 Ile His Lys Asn Gln Arg Lys His Ala Thr Phe Gly Pro Tyr Ile Ile  
 35 40 45  
 Gly Ser Thr Leu Gly Glu Gly Glu Phe Gly Lys Val Lys Leu Gly Trp  
 50 55 60  
 Thr Lys Ala Ser Ser Ser Asn Glu Val Pro Lys Gln Val Ala Ile Lys  
 65 70 75 80  
 Leu Ile Arg Arg Asp Thr Ile Lys Lys Asp Ala Asp Lys Glu Ile Lys  
 85 90 95

Ile Tyr Arg Glu Ile Asn Ala Leu Lys His Leu Thr His Pro Asn Ile  
 100 105 110

Ile Tyr Leu Glu Glu Val Leu Gln Asn Ser Lys Tyr Ile Gly Ile Val  
 115 120 125

Leu Glu Phe Val Ser Gly Gly Glu Phe Tyr Lys Tyr Ile Gln Arg Lys  
 130 135 140

Arg Arg Leu Lys Glu Ser Ser Ala Cys Arg Leu Phe Ala Gln Leu Ile  
 145 150 155 160

Ser Gly Val Asn Tyr Met His Tyr Lys Gly Leu Val His Arg Asp Leu  
 165 170 175

Lys Leu Glu Asn Leu Leu Asp Lys His Glu Asn Leu Val Ile Thr  
 180 185 190

Asp Phe Gly Phe Val Asn Glu Phe Phe Glu Asp Asn Glu Leu Met Lys  
 195 200 205

Thr Ser Cys Gly Ser Pro Cys Tyr Ala Ala Pro Glu Leu Val Val Ser  
 210 215 220

Thr Lys Ala Tyr Glu Ala Arg Lys Ala Asp Val Trp Ser Cys Gly Val  
 225 230 235 240

Ile Leu Tyr Ala Met Leu Ala Gly Tyr Leu Pro Trp Asp Asp Asp His  
 245 250 255

Glu Asn Pro Thr Gly Asp Asp Ile Ala Arg Leu Tyr Lys Tyr Ile Thr  
 260 265 270

Gln Thr Pro Leu Lys Phe Pro Glu Tyr Ile Thr Pro Ile Pro Arg Asp  
 275 280 285

Leu Leu Arg Arg Ile Leu Val Pro Asn Pro Arg Arg Arg Ile Asn Leu  
 290 295 300

Gln Thr Ile Lys Arg His Val Trp Leu Lys Pro His Glu Ala Phe Leu  
 305 310 315 320

Ser Ile Gln Pro Asn Tyr Trp Asp Glu His Leu Gln Lys Glu Arg Pro  
 325 330 335

Lys Pro Pro Asn Lys Gly Asp Val Gly Arg His Ser Thr Tyr Ser Ser  
 340 345 350

Ser Ala Ser Ser Tyr Ser Lys Ser Arg Asp Arg Asn Ser Leu Ile Ile  
 355 360 365

Glu Ser Thr Leu Glu Gln His Arg Met Ser Pro Gln Leu Ala Thr Ser  
 370 375 380

Arg Pro Ala Ser Pro Thr Phe Ser Thr Gly Ser Lys Val Val Leu Asn  
 385 390 395 400

Asp Thr Lys Asn Asp Met Lys Glu Ser Asn Ile Asn Gly Glu Arg Thr  
                   405                  410                  415  
  
 Ser Ala Ser Cys Arg Tyr Thr Arg Asp Ser Lys Gly Asn Gly Gln Thr  
                   420                  425                  430  
  
 Gln Ile Glu Gln Val Ser Ala Arg His Ser Ser Arg Gly Asn Lys His  
                   435                  440                  445  
  
 Thr Ser Val Ala Gly Leu Val Thr Ile Pro Gly Ser Pro Thr Thr Ala  
                   450                  455                  460  
  
 Arg Thr Arg Asn Ala Pro Ser Ser Lys Leu Thr Glu His Val Lys Asp  
                   465                  470                  475                  480  
  
 Ser Ser Gln Thr Ser Phe Thr Gln Glu Glu Phe His Arg Ile Gly Asn  
                   485                  490                  495  
  
 Tyr His Val Pro Arg Ser Arg Pro Arg Pro Thr Ser Tyr Tyr Pro Gly  
                   500                  505                  510  
  
 Leu Ser Arg Asn Thr Ala Asp Asn Ser Leu Ala Asp Ile Pro Val Asn  
                   515                  520                  525  
  
 Lys Leu Gly Ser Asn Gly Arg Leu Thr Asp Ala Lys Asp Pro Val Pro  
                   530                  535                  540  
  
 Leu Asn Ala Ile His Asp Thr Asn Lys Ala Thr Ile Ser Asn Asn Ser  
                   545                  550                  555                  560  
  
 Ile Met Leu Leu Ser Glu Gly Pro Ala Ala Lys Thr Ser Pro Val Asp  
                   565                  570                  575  
  
 Tyr His Tyr Ala Ile Gly Asp Leu Asn His Gly Asp Lys Pro Ile Thr  
                   580                  585                  590  
  
 Glu Val Ile Asp Lys Ile Asn Lys Asp Leu Thr His Lys Ala Ala Glu  
                   595                  600                  605  
  
 Asn Gly Phe Pro Arg Glu Ser Ile Asp Pro Glu Ser Thr Ser Thr Ile  
                   610                  615                  620  
  
 Leu Val Thr Lys Glu Pro Thr Asn Ser Thr Asp Glu Asp His Val Glu  
                   625                  630                  635                  640  
  
 Ser Gln Leu Glu Asn Val Gly His Ser Ser Asn Lys Ser Asp Ala Ser  
                   645                  650                  655  
  
 Ser Asp Lys Asp Ser Lys Lys Ile Tyr Glu Lys Lys Arg Phe Ser Phe  
                   660                  665                  670  
  
 Met Ser Leu Tyr Ser Ser Leu Asn Gly Ser Arg Ser Thr Val Glu Ser  
                   675                  680                  685  
  
 Arg Thr Ser Lys Gly Asn Ala Pro Pro Val Ser Ser Arg Asn Pro Ser  
                   690                  695                  700

Gly Gln Ser Asn Arg Ser Asn Ile Lys Ile Thr Gln Gln Gln Pro Arg  
 705 710 715 720

Asn Leu Ser Asp Arg Val Pro Asn Pro Asp Lys Lys Ile Asn Asp Asn  
 725 730 735

Arg Ile Arg Asp Asn Ala Pro Ser Tyr Ala Glu Ser Glu Asn Pro Gly  
 740 745 750

Arg Ser Val Arg Ala Ser Val Met Val Ser Thr Leu Arg Glu Glu Asn  
 755 760 765

Arg Ser Glu Leu Ser Asn Glu Gly Asn Asn Val Glu Ala Gln Thr Ser  
 770 775 780

Thr Ala Arg Lys Val Leu Asn Phe Phe Lys Arg Arg Ser Met Arg Val  
 785 790 795 800

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<210> 7  
<211> 865  
<212> PRT  
<213> Saccharomyces cerevi
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<400> 7  
 Met Ser Tyr Thr Asn Lys Arg His Thr Tyr Tyr Gly Gly Phe Thr Asn  
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Asp Leu Ser Asp Thr Phe Gln Tyr Pro Gln Arg Thr Asp Glu Gln Arg  
 20 25 30

Arg Lys His Val Thr Phe Gly Pro Tyr Ile Leu Gly Ser Thr Leu Gly  
 35 40 45

Glu Gly Glu Phe Gly Lys Val Lys Leu Gly Trp Pro Lys Asn Phe Ser  
 50 55 60

Asn Ser Ser Asn Ser Thr Phe Asp Phe Pro Lys Gln Val Ala Ile Lys  
 65 70 75 80

Leu Ile Lys Arg Asp Ser Ile Ser Asn Asp Tyr Arg Lys Glu Val Lys  
 85 90 95

Ile Tyr Arg Glu Ile Asn Ala Leu Lys His Leu Ser His Pro Asn Ile  
 100 105 110

Val Lys Leu Glu Glu Val Leu Gln Asn Ser Arg Tyr Ile Gly Ile Val  
 115 120 125

Leu Glu Tyr Ala Cys Gly Gly Glu Phe Tyr Lys Tyr Ile Gln Lys Lys  
 130 135 140

Arg Arg Leu Lys Glu Met Asn Ala Cys Arg Leu Phe Ser Gln Leu Ile  
 145 150 155 160

Ser Gly Val His Tyr Ile His Ser Lys Gly Leu Val His Arg Asp Leu  
 165 170 175

Lys Leu Glu Asn Leu Leu Leu Asp Lys Asn Glu Asn Leu Val Ile Thr  
       180                    185                    190  
  
 Asp Phe Gly Phe Val Asn Glu Phe Cys Ser Arg Asn Glu Leu Met Lys  
       195                    200                    205  
  
 Thr Ser Cys Gly Ser Pro Cys Tyr Ala Ala Pro Glu Leu Val Ile Ser  
       210                    215                    220  
  
 Ala Glu Pro Tyr Glu Ala Arg Lys Ala Asp Ile Trp Ser Cys Gly Val  
       225                    230                    235                    240  
  
 Ile Leu Tyr Ala Ile Leu Ala Gly Tyr Leu Pro Trp Asp Asp Asp Pro  
       245                    250                    255  
  
 Asn Asn Pro Glu Gly Ser Asp Ile Gly Arg Leu Tyr Asn Tyr Ile Asn  
       260                    265                    270  
  
 Ser Thr Pro Leu Lys Phe Pro Asp Tyr Ile Leu Pro Ile Pro Arg Asp  
       275                    280                    285  
  
 Leu Leu Arg Arg Met Leu Val Ser Asp Pro Lys Lys Arg Ile Asn Leu  
       290                    295                    300  
  
 Lys Gln Ile Lys Lys His Glu Trp Leu Lys Pro His Ser Ser Phe Leu  
       305                    310                    315                    320  
  
 Ser Ile Thr Pro Asp Glu Trp Asp Lys Leu Asn Asn Thr Gln Ser Val  
       325                    330                    335  
  
 Phe Arg Leu Ala Lys Pro Arg Arg Tyr Gly Ser Arg Pro Gln Ser  
       340                    345                    350  
  
 Ser Cys Ser Thr Ser Ser Leu Gly Ser Arg Ser Asp Lys Arg Asp Ser  
       355                    360                    365  
  
 Leu Val Ile Asp Ser Thr Leu Ile Thr Phe Pro Ala Pro Pro Gln Glu  
       370                    375                    380  
  
 Ser Gln Asn His Ile Ile Thr Arg Pro Ala Ser Ile Ala Ser Asp Gln  
       385                    390                    395                    400  
  
 Arg Leu Ser Pro Ile Arg Arg Ser Asn Arg His Asn Arg Ser Asn Ser  
       405                    410                    415  
  
 Ala Ala Ser Val Ala Leu Gln Ala Val Val Asn Ala Asp Arg Glu Tyr  
       420                    425                    430  
  
 Val Leu Ser His Glu Gln Ser Leu Ser Pro Val Gln Asn Ile Arg Gln  
       435                    440                    445  
  
 Thr Thr Gly Asn Met Thr Ala Ser Leu Ser Pro Pro Pro Ala Ile Ser  
       450                    455                    460  
  
 Pro Gly Asp Ile Ile Ile Glu Thr Thr Pro Ile Lys Arg Asn Thr Ile  
       465                    470                    475                    480

Ser Gly Ser Ser Ile Val Pro Ser Leu Glu Glu Glu Ser Ser Thr Thr  
 485 490 495

Met Gln Thr Ser Lys Ile Gln Pro Asn Asn Met Ala Ser Ser Gln Asn  
 500 505 510

His Gln Tyr Asn Lys Asn Lys Thr Gln Asn Ser Leu Gln Ser Ala Lys  
 515 520 525

Asn Phe Tyr Arg Thr Ser Ser Ser His Thr Lys Pro Arg Pro Thr  
 530 535 540

Ser Tyr His Pro Gly Ser Tyr Thr Thr Pro Pro Tyr Asn Ser Asn Thr  
 545 550 555 560

Leu Ser Ile Tyr Glu Ile Asn Glu Lys Ala Lys Ser Ser Ala Ser Ser  
 565 570 575

Gln Thr Leu Asn Gln Arg Asp Thr Ser Pro Phe Asp Ser Thr Pro Tyr  
 580 585 590

Leu Ala Leu Asp Thr Cys Ile Thr Ser Ser Ser Ser Ile Glu Ser Ser  
 595 600 605

Pro Lys Leu Ile Thr His Gly Gln Phe Ser Val Ala Lys Pro Ser Val  
 610 615 620

Asp Leu Gln Ser Val Ser Gly Asp Leu Ile Lys Tyr Lys Arg Asp Ala  
 625 630 635 640

Asp Val Val Thr Arg Ile Tyr Asp Glu Lys Tyr Lys Gln Lys Arg Lys  
 645 650 655

Ser Leu Arg Tyr Ser Gly Ile Phe Ser Asp Ile Ser Cys Asp Thr Val  
 660 665 670

Thr Glu Glu Ser Asp Glu Leu Arg Pro Pro Glu Ser Pro Leu Gln Gln  
 675 680 685

His Glu Gly Gln Glu Ser Ile Asp Lys Ala Lys Thr Glu Asp Thr Ser  
 690 695 700

Glu Lys Gly Ser Lys Ser Ser Asn Ile Ala Lys Ala Thr Ala Gln Lys  
 705 710 715 720

His Val Asn Asn His Leu Glu Arg Ser Leu Asn Glu Ala Glu Ser Thr  
 725 730 735

Lys Lys Arg Phe Ser Phe Leu Ser Leu Tyr Ser Tyr Asp Thr Ser Lys  
 740 745 750

Ser Ser Leu Tyr Ser Ser Met Asp Ser Lys Arg Lys Pro Ser Pro Pro  
 755 760 765

Ser Gln Arg Arg Pro Lys Lys Asp Asp Ser Tyr Gln Thr Asn Ser Lys  
 770 775 780

Asn His Tyr Ile Thr Ala Ser Asn Met Gln Thr Ser His Gln Val Ser  
 785                    790                    795                    800

Lys Asp Leu Pro Ala Pro Thr Met Val Gln Asn Lys Cys Thr Leu Glu  
 805                    810                    815

Thr Lys Lys Ala Val Arg Ser Asn Arg Ser Ser Ile Met Val Ser Glu  
 820                    825                    830

Val Asn Lys Ala Ser Val Asp Asn Lys Ala Ala Gln Ser Pro Glu His  
 835                    840                    845

Ser Thr Ala Lys Arg Val Leu Gly Phe Phe Lys Arg Arg Ser Met Lys  
 850                    855                    860

Ile  
 865

<210> 8  
 <211> 994  
 <212> PRT  
 <213> Candida albicans

<400> 8  
 Met Ser Thr Ile Pro Ser Gln Val Glu Ile Asn Phe Asn Lys Ile His  
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Gln Arg Ser Asn Ser Ser Ser Thr Ser Ser Tyr Arg Ile Pro Ser  
 20                    25                    30

Gly Asn Ser Cys Ile Pro Arg Thr Val Glu Met Pro Ser Leu Pro Pro  
 35                    40                    45

Thr Ser Thr His His Gln His Gln Gln Met Pro Ser Ser Ser Ser His  
 50                    55                    60

Ala His Ile Ala Lys Lys Ile His Arg Glu Val Arg Phe Gly Ala Tyr  
 65                    70                    75                    80

Ile Leu Gly Ser Thr Leu Gly Glu Gly Phe Gly Lys Val Lys Leu  
 85                    90                    95

Gly Trp Arg Lys Asp Gly Lys His Pro Ser Gln Val Ala Ile Lys Leu  
 100                    105                    110

Ile Lys Arg Ser Thr Ile Thr Lys Asp Ser Asp Ser Glu Ile Lys Ile  
 115                    120                    125

His Arg Glu Ile Asn Ser Leu Lys Leu Leu Asn His Pro Asn Ile Val  
 130                    135                    140

Asn Leu Val Glu Val Met Lys Ser Gly Lys Tyr Ile Gly Ile Val Leu  
 145                    150                    155                    160

Glu Tyr Ala Ser Gly Gly Glu Leu Phe Asp Tyr Ile Leu Gln His Lys  
 165                    170                    175

Tyr Leu Lys Glu Asn Val Ala Lys Lys Leu Phe Ala Gln Leu Val Ser  
 180 185 190  
 Gly Val Asp Tyr Met His Ala Lys Gly Leu Ile His Arg Asp Leu Lys  
 195 200 205  
 Leu Glu Asn Leu Leu Leu Asp Lys His Arg Asn Val Ile Ile Ser Asp  
 210 215 220  
 Phe Gly Phe Val Asn Ser Tyr Asn Arg Asp Lys Asn Asp Leu Met Lys  
 225 230 235 240  
 Thr Ser Cys Gly Ser Pro Cys Tyr Ala Ala Pro Glu Leu Val Leu Ser  
 245 250 255  
 Gln Thr Ala Tyr Glu Gly Arg Lys Val Asp Ile Trp Ser Leu Gly Val  
 260 265 270  
 Ile Leu Tyr Ala Met Leu Ala Gly Tyr Leu Pro Phe Asp Asp Asp Pro  
 275 280 285  
 Glu Asn Glu Asp Gly Ser Asp Ile Ile Lys Leu Tyr His Tyr Ile Cys  
 290 295 300  
 Lys Thr Pro Leu Thr Phe Pro Glu Tyr Val Ser Pro Leu Ala Arg Asp  
 305 310 315 320  
 Leu Leu Arg Lys Ile Ile Val Ser Asp Pro Lys Lys Arg Ile Ser Ile  
 325 330 335  
 Asp Asp Ile Arg Asn His Pro Trp Leu Ser Ser His Ala Asn Leu Leu  
 340 345 350  
 Ser Ile Arg Gln Pro Glu Trp Asp Lys Val His Ser Glu Lys Gln Gln  
 355 360 365  
 Pro Ile Ala Val Glu Pro Pro Gln Pro Asn Lys Arg Tyr Ser Met Ile  
 370 375 380  
 Asn Glu Arg Thr Asn Ser Ser Ser Leu Met Ser Pro Ala Pro Arg Val  
 385 390 395 400  
 Thr His Thr Gln Pro Leu Ser Ser His Ala Arg Ser Tyr Ser Ser Thr  
 405 410 415  
 Ser Ile Ser Leu Leu Tyr Ser Ser Pro Ser Ala Thr Pro Ser Met Ala  
 420 425 430  
 Asn Ala Val Thr Asn Gly Glu Gly Ala Thr Thr Thr Thr Asn Gly  
 435 440 445  
 Ser Ile Asn Glu Ser Asn Asp Thr Leu Gln Leu Ser Gly Thr Pro Ser  
 450 455 460  
 Pro Lys Lys Pro Ser Thr Val Ser Pro Val Arg Gly His Gln Lys Ser  
 465 470 475 480

Ala Ser Ile Ser Asn Ser Tyr Ser Ser Ala Ser Ile Ala Leu Lys Ala  
                   485                  490                  495  
  
 Val Val His Glu Glu Asn Arg Leu His Asn His Gln Gln Ser Gln Gln  
                   500                  505                  510  
  
 Tyr Ile Pro Arg Ser Ser Thr Ile Ser Thr Ile Val Glu Ser Pro Thr  
                   515                  520                  525  
  
 Lys Ala Asn Thr Ala Thr Glu Thr Glu Thr Thr Asp Gly His Lys Ile  
                   530                  535                  540  
  
 Leu Leu Pro Pro Pro Ser Lys Asp Ala Gln Lys Leu Pro His Ala Ala  
                   545                  550                  555                  560  
  
 Lys Lys Pro Arg Pro Thr Ser Tyr His Pro Ser Ser Met Ser Ser Ala  
                   565                  570                  575  
  
 Leu Ile His Asn Asn Gln Asn Pro Thr Asp Val Leu Lys Met Pro Ser  
                   580                  585                  590  
  
 Pro Ile Asn Phe Pro Met Thr Gln Phe Ile Ser Thr Ser Pro Pro Lys  
                   595                  600                  605  
  
 Ser Asn Gly Ser Leu Asn Asp Ser Gly Asn Phe Thr Asn Cys Ser Pro  
                   610                  615                  620  
  
 Lys Ala Thr Ser Arg Arg Asn Ser Val Val Thr His Val His Val Asn  
                   625                  630                  635                  640  
  
 Gly Val Leu Ser Lys Glu Asn Leu Ile His Ser Ser Ser Ser Pro Asp  
                   645                  650                  655  
  
 Asn Lys Arg Asn Ser Val Leu Ser Tyr Leu Glu Asp Lys Ile Asp Thr  
                   660                  665                  670  
  
 Leu Glu Leu Thr Glu Ser His Ser Pro Ser Lys Asn Thr Phe Glu Glu  
                   675                  680                  685  
  
 Ile Val Asp Ala Ala Ile Ala Thr Pro Glu Ile Asn Gln Val Pro Val  
                   690                  695                  700  
  
 Phe Asp Ser Gln Thr Ser Pro Asn Gly Ile Gly Leu Asp Ile Lys His  
                   705                  710                  715                  720  
  
 Lys Glu Phe Asp Glu Thr Ser Leu Val Val Glu Lys Lys Ser Lys Glu  
                   725                  730                  735  
  
 Thr Val Ser Asp Ser Lys Ser Glu Glu Ser Thr Lys Glu Thr Gln Gln  
                   740                  745                  750  
  
 Gln Glu Asn Val Val Met Tyr Glu Pro Ile Val Pro Val Glu Glu Tyr  
                   755                  760                  765  
  
 Ile Lys Lys Pro Glu Glu Val Asn Ser Val Glu Ala Lys Gln Pro Glu  
                   770                  775                  780

Glu Val Lys Ser Glu Asp Lys Ser Leu Gln Gly Gln Lys Ser Gln Gln  
 785                    790                    795                    800  
  
 Gln Gln Gln Pro Glu Lys His Ser Ala Asp Ile Gly Lys Thr Lys  
 805                    810                    815  
  
 Val Asp Leu Lys Lys Ser Ala Ser Gln Lys Lys Lys Val Lys Glu Glu  
 820                    825                    830  
  
 Ser Ile Lys Lys Gln Lys Asp Val Asp Ser Lys Pro Ile Glu Arg Arg  
 835                    840                    845  
  
 His Thr Ile Ala Ala Arg Arg His His Asn Asp Glu Asn Lys Glu Asn  
 850                    855                    860  
  
 Lys Asp Val Lys Lys Arg Asn Arg Phe Ser Leu Leu Ser Phe Tyr Ser  
 865                    870                    875                    880  
  
 Ser Tyr Asn Ser Ser Asn Ser Asn Val Ser Leu Ala Thr Ser Lys Val  
 885                    890                    895  
  
 Pro Ser Asn Ser Glu Asn Asn Thr Thr Val Leu Lys Pro Thr Ser Met  
 900                    905                    910  
  
 Asn Thr Thr Arg Lys Val Leu Glu Pro Ser Asn Glu Thr Asn Ile Met  
 915                    920                    925  
  
 Arg Lys Glu Thr Lys Gln Thr Asn Ser Asn Gly Ser Thr Thr Ser Lys  
 930                    935                    940  
  
 Ser Thr Thr Ser Ser Ser Ser Ala Pro Ala Ala Ser Ser Ser  
 945                    950                    955                    960  
  
 Ser Ser Ser Ser Thr Ser Lys Arg Ala Ser Thr Ala Thr Lys Glu Thr  
 965                    970                    975  
  
 Ser Ala Ala Arg Lys Val Met Asp Phe Phe Lys Arg Arg Ser Val Arg  
 980                    985                    990  
  
 Val Gly

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 <212> PRT  
 <213> Schizosaccharomyces pombe

<400> 9  
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Gln Asp Ile Ile Ser Asn Ser Tyr Gln Lys Pro Leu Ser Leu Val Asp  
 20                    25                    30

Ser Thr Asp Arg Ala Leu Pro Asp Ser Ser Leu Ser Ser Leu Ser Arg  
 35                    40                    45

Ser Thr Phe Gln Phe His Lys His His Leu Ser Gly Asn Glu Asn Pro  
       50                  55                  60

Gln Pro Ser Ser Glu Ser Pro Tyr Phe Thr Asn Asn Glu Arg Leu Asn  
       65                  70                  75                  80

Ser Ser Ser Phe Pro Gln Ile His Asp Asn Gln Leu Ser Pro Ser Phe  
       85                  90                  95

Asn Thr Ser Tyr Gln Ala Ile Pro Ser Ser Ser Asn Arg Ser Arg  
       100                105                110

Gly Gly Pro Tyr Thr Pro Ser Ile Arg Asp Asp Ser Leu Leu Ala Leu  
       115                120                125

Leu Ser Phe Ser Ser Asn His Arg Leu His Ser Met Pro Ser Gln Leu  
       130                135                140

Gln Pro Phe Asn Asn Ala Ser Ser Tyr Thr Thr Pro Met Ala Pro Phe  
       145                150                155                160

Thr Ala Ser Phe Ser Asn Lys Val Ser His Ser Ala Tyr Pro Thr Arg  
       165                170                175

Arg Leu Pro Ser Gln Ala Lys Lys Thr Ser Ala Ile Glu Arg Val Pro  
       180                185                190

Val Asn Leu Asn Phe Leu Gln Ser Asp Asn Leu Val Val Gln Ser Ser  
       195                200                205

Pro Gln Thr Asn Phe Glu Asn Phe Glu Phe Pro Lys Lys Ile Pro Ser  
       210                215                220

Lys Glu Asp Leu Glu Thr Arg Glu Val Leu Leu Leu Pro Pro Gln Thr  
       225                230                235                240

Ser Lys Leu Ser Asn Lys Asn Leu Asp Thr Lys Ser Phe Thr Asp Val  
       245                250                255

Asn Lys Ile Ser Gln Gln Gly Phe Val Glu Ile Ser Ser Asn Ser Ser  
       260                265                270

Lys Val Thr Pro Asn Thr Ser Leu His Gln Ser Phe Gly Ile Ala Ser  
       275                280                285

Ser Ser Ser Asn Asn Tyr Met Gln Thr Ser Ser Glu Leu Thr Ser Ser  
       290                295                300

Thr Glu Lys Met Asn Gly Ser His Pro Leu Gln Leu Ser Asn Lys Ser  
       305                310                315                320

Leu Leu Ser Ile His Leu Met Gln Ser Lys Asn Gln Gly His Val Ser  
       325                330                335

Met Thr Gly Ser Asp Lys Leu Ser Ser His Val Gln Ser Glu Thr Glu  
       340                345                350

Asn Ala Pro Val Ser Lys Pro Ser Lys Pro Asn Thr Leu Thr Glu Asp  
 355 360 365  
 Glu Lys Pro Leu Gln Ser Thr Lys Leu Pro Gly Asn Ser Leu Thr Val  
 370 375 380  
 Gly Glu Leu Tyr Gln Glu Pro Lys Ser Ile Gln Leu Pro Glu Leu Ser  
 385 390 395 400  
 Val Ser Arg Thr Thr Tyr Ser Ala Gln Ser Ser Ser Val Lys Asn Cys  
 405 410 415  
 Asn Glu Arg Ile Pro Ser Ala Lys Ala Leu Lys Lys Gln Lys His Leu  
 420 425 430  
 Val Pro Glu Asn Lys Ser Lys Leu Gln Tyr Val Trp Gln Lys Lys Glu  
 435 440 445  
 Ser Leu Pro Tyr Ala Asn Leu Thr Ser Ala Ser Asn Thr His Phe Phe  
 450 455 460  
 Leu Ser Glu Asn Gln Asn Asp Thr Ser Glu Arg Leu Thr Arg Thr Leu  
 465 470 475 480  
 Arg Lys Ser Thr Lys Asn Tyr Thr Phe Gly Ser Tyr Ile Leu Gly Arg  
 485 490 495  
 Thr Ile Gly Thr Gly Glu Phe Gly Lys Val Lys Leu Gly Trp Pro Leu  
 500 505 510  
 Pro Lys Ala Asn Ser Thr Ile His Arg Ser Thr Pro Gln Val Val Ile  
 515 520 525  
 Lys Ile Val Leu Ser Thr Lys Gln Asn Cys Gln Thr Ser Arg Leu Met  
 530 535 540  
 Arg Glu Val Ala Ile Leu Lys Gly Leu Gly Asn Asn His Pro His Ile  
 545 550 555 560  
 Val Lys Tyr Leu Asp Phe Val Lys Thr Lys His His Phe Gly Ile Val  
 565 570 575  
 Leu Asp Tyr Val Asn Gly Gly Glu Leu Phe Asp Tyr Ile Leu Ala Arg  
 580 585 590  
 Arg Arg Leu Glu Asp Ser Val Ala Cys Arg Leu Phe Ala Gln Leu Ile  
 595 600 605  
 Ser Gly Val Ala Tyr Leu His Ser Arg Gly Val Val His Arg Asp Pro  
 610 615 620  
 Tyr Ser Glu Ser Tyr  
 625

<210> 10  
 <211> 1142

&lt;212&gt; PRT

&lt;213&gt; Saccharomyces cerevisiae

&lt;400&gt; 10

|                                                                 |    |
|-----------------------------------------------------------------|----|
| Met Ala Ile Asn Gly Asn Ser Ile Pro Ala Ile Lys Asp Asn Thr Ile |    |
| 1                                                               | 5  |
|                                                                 | 10 |
|                                                                 | 15 |

|                                                                 |    |
|-----------------------------------------------------------------|----|
| Gly Pro Trp Lys Leu Gly Glu Thr Leu Gly Leu Gly Ser Thr Gly Lys |    |
| 20                                                              | 25 |
|                                                                 | 30 |

|                                                                 |    |
|-----------------------------------------------------------------|----|
| Val Gln Leu Ala Arg Asn Gly Ser Thr Gly Gln Glu Ala Ala Val Lys |    |
| 35                                                              | 40 |
|                                                                 | 45 |

|                                                                 |    |
|-----------------------------------------------------------------|----|
| Val Ile Ser Lys Ala Val Phe Asn Thr Gly Asn Val Ser Gly Thr Ser |    |
| 50                                                              | 55 |
|                                                                 | 60 |

|                                                                 |    |
|-----------------------------------------------------------------|----|
| Ile Val Gly Ser Thr Thr Pro Asp Ala Leu Pro Tyr Gly Ile Glu Arg |    |
| 65                                                              | 70 |
|                                                                 | 75 |
|                                                                 | 80 |

|                                                                 |    |
|-----------------------------------------------------------------|----|
| Glu Ile Ile Ile Met Lys Leu Leu Asn His Pro Asn Val Leu Arg Leu |    |
| 85                                                              | 90 |
|                                                                 | 95 |

|                                                                 |     |
|-----------------------------------------------------------------|-----|
| Tyr Asp Val Trp Glu Thr Asn Thr Asp Leu Tyr Leu Val Leu Glu Tyr |     |
| 100                                                             | 105 |
|                                                                 | 110 |

|                                                                 |     |
|-----------------------------------------------------------------|-----|
| Ala Glu Lys Gly Glu Leu Phe Asn Leu Leu Val Glu Arg Gly Pro Leu |     |
| 115                                                             | 120 |
|                                                                 | 125 |

|                                                                 |     |
|-----------------------------------------------------------------|-----|
| Pro Glu His Glu Ala Ile Arg Phe Phe Arg Gln Ile Ile Ile Gly Val |     |
| 130                                                             | 135 |
|                                                                 | 140 |

|                                                                 |     |
|-----------------------------------------------------------------|-----|
| Ser Tyr Cys His Ala Leu Gly Ile Val His Arg Asp Leu Lys Pro Glu |     |
| 145                                                             | 150 |
|                                                                 | 155 |
|                                                                 | 160 |

|                                                                 |     |
|-----------------------------------------------------------------|-----|
| Asn Leu Leu Leu Asp His Lys Tyr Asn Ile Lys Ile Ala Asp Phe Gly |     |
| 165                                                             | 170 |
|                                                                 | 175 |

|                                                                 |     |
|-----------------------------------------------------------------|-----|
| Met Ala Ala Leu Glu Thr Glu Gly Lys Leu Leu Glu Thr Ser Cys Gly |     |
| 180                                                             | 185 |
|                                                                 | 190 |

|                                                                 |     |
|-----------------------------------------------------------------|-----|
| Ser Pro His Tyr Ala Ala Pro Glu Ile Val Ser Gly Ile Pro Tyr Gln |     |
| 195                                                             | 200 |
|                                                                 | 205 |

|                                                                 |     |
|-----------------------------------------------------------------|-----|
| Gly Phe Ala Ser Asp Val Trp Ser Cys Gly Val Ile Leu Phe Ala Leu |     |
| 210                                                             | 215 |
|                                                                 | 220 |

|                                                                 |     |
|-----------------------------------------------------------------|-----|
| Leu Thr Gly Arg Leu Pro Phe Asp Glu Glu Asp Gly Asn Ile Arg Thr |     |
| 225                                                             | 230 |
|                                                                 | 235 |
|                                                                 | 240 |

|                                                                 |     |
|-----------------------------------------------------------------|-----|
| Leu Leu Leu Lys Val Gln Lys Gly Glu Phe Glu Met Pro Ser Asp Asp |     |
| 245                                                             | 250 |
|                                                                 | 255 |

|                                                                 |     |
|-----------------------------------------------------------------|-----|
| Glu Ile Ser Arg Glu Ala Gln Asp Leu Ile Arg Lys Ile Leu Thr Val |     |
| 260                                                             | 265 |
|                                                                 | 270 |

|                                                                 |     |
|-----------------------------------------------------------------|-----|
| Asp Pro Glu Arg Arg Ile Lys Thr Arg Asp Ile Leu Lys His Pro Leu |     |
| 275                                                             | 280 |
|                                                                 | 285 |

Leu Gln Lys Tyr Pro Ser Ile Arg Asp Ser Lys Ser Ile Arg Gly Leu  
 290 295 300

Pro Arg Glu Asp Thr Tyr Leu Thr Pro Leu Ser Glu Ser Asn Ser Ser  
 305 310 315 320

Ile Asp Ala Thr Ile Leu Gln Asn Leu Val Ile Leu Trp His Gly Arg  
 325 330 335

Asp Pro Glu Gly Ile Lys Glu Lys Leu Arg Glu Pro Gly Ala Asn Ala  
 340 345 350

Glu Lys Thr Leu Tyr Ala Leu Leu Tyr Arg Phe Lys Cys Asp Thr Gln  
 355 360 365

Lys Glu Leu Ile Lys Gln Gln Gln Val Lys Lys Arg Gln Ser Ile Ser  
 370 375 380

Ser Val Ser Val Ser Pro Ser Lys Lys Val Ser Thr Thr Pro Gln Arg  
 385 390 395 400

Arg Arg Asn Arg Glu Ser Leu Ile Ser Val Thr Ser Ser Arg Lys Lys  
 405 410 415

Pro Ile Ser Phe Asn Lys Phe Thr Ala Ser Ser Ala Ser Ser Asn  
 420 425 430

Leu Thr Thr Pro Gly Ser Ser Lys Arg Leu Ser Lys Asn Phe Ser Ser  
 435 440 445

Lys Lys Lys Leu Ser Thr Ile Val Asn Gln Ser Ser Pro Thr Pro Ala  
 450 455 460

Ser Arg Asn Lys Arg Ala Ser Val Ile Asn Val Glu Lys Asn Gln Lys  
 465 470 475 480

Arg Ala Ser Ile Phe Ser Thr Thr Lys Lys Asn Lys Arg Ser Ser Arg  
 485 490 495

Ser Ile Lys Arg Met Ser Leu Ile Pro Ser Met Lys Arg Glu Ser Val  
 500 505 510

Thr Thr Lys Leu Met Ser Thr Tyr Ala Lys Leu Ala Glu Asp Asp Asp  
 515 520 525

Trp Glu Tyr Ile Glu Lys Glu Thr Lys Arg Thr Ser Ser Asn Phe Ala  
 530 535 540

Thr Leu Ile Asp Glu Ile Phe Glu Tyr Glu Lys Tyr Glu Gln Ile Arg  
 545 550 555 560

Lys Glu Lys Glu Glu Leu Glu Arg Lys Val Arg Glu Ala Lys Ala Arg  
 565 570 575

Glu Glu Leu Glu Arg Arg Arg Arg Lys Gln Glu Glu Lys Glu Arg Ala  
 580 585 590

Arg Lys Leu Leu Glu Lys Glu Asp Leu Lys Arg Lys Gln Glu Glu Leu  
 595 600 605

Lys Lys Gln Ile Glu Ile Asp Ile Ser Asp Leu Glu Gln Glu Leu Ser  
 610 615 620

Lys His Lys Glu Glu Lys Leu Asp Gly Asn Ile Arg Ser Ile Ser Ala  
 625 630 635 640

Pro Met Glu Asn Glu Glu Lys Asn Ile Asn His Leu Glu Val Asp Ile  
 645 650 655

Asp Asn Ile Leu Arg Arg Arg Asn Phe Ser Leu Gln Thr Arg Pro Val  
 660 665 670

Ser Arg Leu Asp Pro Gly Ile Met Phe Ser Ser Pro Thr Glu Glu Val  
 675 680 685

Ser Pro Val Glu Pro Lys Arg Thr Glu Asn Glu Arg Leu Thr Thr Glu  
 690 695 700

Lys Lys Ile Leu Glu Thr Ile Arg Arg Ser Lys Phe Leu Gly Ser Ser  
 705 710 715 720

Phe Asn Ile Asp Lys Glu Leu Lys Leu Ser Lys Met Glu Tyr Pro Ser  
 725 730 735

Ile Ile Ala Pro Gln Arg Leu Ser Glu Glu Arg Val Val Ser Asp Ser  
 740 745 750

Asn Asp Gly Tyr Glu Ser Leu Ile Leu Pro Lys Asp Gly Asn Gly Val  
 755 760 765

Ser Gln Leu Lys Asp Ser Thr Ala Thr Thr Ala Pro Val Ser Asp Gly  
 770 775 780

Arg Leu Arg Lys Ile Ser Glu Ile Arg Val Pro Gln Phe Thr Arg Lys  
 785 790 795 800

Ser Arg His Phe Ser Glu Ser Asn Lys Arg Leu Ser Val Leu Ser Met  
 805 810 815

Tyr Ser Thr Lys Glu Ser Phe Thr Asn Leu Val Asp Ile Leu Lys Asn  
 820 825 830

Gly Asn Leu Asp Val Asn Asn Gln Gln Ser Gln Arg Ile Pro Thr Pro  
 835 840 845

Arg Ser Ala Asp Asp Ser Glu Phe Leu Phe Glu Thr Val Asn Glu Glu  
 850 855 860

Ala Glu Tyr Thr Gly Asn Ser Ser Asn Asp Glu Arg Leu Tyr Asp Val  
 865 870 875 880

Gly Asp Ser Thr Ile Lys Asp Lys Ser Ala Leu Lys Leu Asn Phe Ala  
 885 890 895

Asp Arg Phe Asn Gly Ser Asn Glu Ala Lys Gln Thr Asp Asn Leu His  
 900 905 910  
 Leu Pro Ile Leu Pro Pro Leu Asn Gly Asp Asn Glu Leu Arg Lys Gln  
 915 920 925  
 Asn Ser Gln Glu Gly Asp Gln Ala His Pro Lys Ile Lys Ser Met Ile  
 930 935 940  
 Pro Glu Ser Gly Ser Ser His Thr Glu Lys Glu Glu Glu Asn Glu  
 945 950 955 960  
 Glu Lys Glu Glu Lys Lys Pro Glu Gln His Lys Gln Glu Glu Asp Gln  
 965 970 975  
 Glu Lys Arg Glu Lys Val Val Asp Asp Met Glu Pro Pro Leu Asn Lys  
 980 985 990  
 Ser Val Gln Lys Ile Arg Glu Lys Asn Ala Gly Ser Gln Ala Lys Asp  
 995 1000 1005  
 His Ser Lys Asp His Leu Lys Glu His Lys Gln Asp Lys Asn Thr Ala  
 1010 1015 1020  
 Ile Gly Asn Gly Ser Phe Phe Arg Lys Phe Ser Lys Ser Ser Asp Lys  
 1025 1030 1035 1040  
 Thr Met Glu Leu Tyr Ala Lys Ile Ser Ala Lys Gln Leu Phe Asn Gly  
 1045 1050 1055  
 Leu Glu Lys Leu Leu Arg Gly Trp Thr Gln Tyr Gly Leu Lys Asn Ile  
 1060 1065 1070  
 Lys Ser His Pro Asn Asn Leu Thr Leu Thr Gly Lys Leu Ser Ser Asp  
 1075 1080 1085  
 Asn Ile Phe Ser Leu Arg Ser Thr Leu Phe Glu Val Asn Ile Tyr Pro  
 1090 1095 1100  
 Arg Gly Lys Met Ser Val Val Gln Phe Lys Lys Val Ser Gly Ser Phe  
 1105 1110 1115 1120  
 Lys Ala Val Lys Lys Leu Val Asn Glu Val Glu Asn Val Leu Asn Lys  
 1125 1130 1135  
 Glu Gly Val Leu Gln Lys  
 1140  
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 <212> PRT  
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 1 5 10 15

Ser Ser Leu Ala Lys Lys Ala Ala Lys Arg Ala Met Ala Lys Val Asn  
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Ser Asn Pro Lys Arg Ala Ser Gly His Leu Glu Arg Val Val Gln Ser  
           35                  40                  45

Val Asn Asp Ala Thr Lys Arg Leu Ser Gln Pro Asp Ser Thr Val Ser  
           50                  55                  60

Val Ala Thr Lys Ser Ser Lys Arg Lys Ser Arg Asp Thr Val Gly Pro  
           65                  70                  75                  80

Trp Lys Leu Gly Lys Thr Leu Gly Lys Gly Ser Ser Gly Arg Val Arg  
           85                  90                  95

Leu Ala Lys Asn Met Glu Thr Gly Gln Leu Ala Ala Ile Lys Ile Val  
           100                  105                  110

Pro Lys Lys Lys Ala Phe Val His Cys Ser Asn Asn Gly Thr Val Pro  
           115                  120                  125

Asn Ser Tyr Ser Ser Met Val Thr Ser Asn Val Ser Ser Pro Ser  
           130                  135                  140

Ile Ala Ser Arg Glu His Ser Asn His Ser Gln Thr Asn Pro Tyr Gly  
           145                  150                  155                  160

Ile Glu Arg Glu Ile Val Ile Met Lys Leu Ile Ser His Thr Asn Val  
           165                  170                  175

Met Ala Leu Phe Glu Val Trp Glu Asn Lys Ser Glu Leu Tyr Leu Val  
           180                  185                  190

Leu Glu Tyr Val Asp Gly Gly Glu Leu Phe Asp Tyr Leu Val Ser Lys  
           195                  200                  205

Gly Lys Leu Pro Glu Arg Glu Ala Ile His Tyr Phe Lys Gln Ile Val  
           210                  215                  220

Glu Gly Val Ser Tyr Cys His Ser Phe Asn Ile Cys His Arg Asp Leu  
           225                  230                  235                  240

Lys Pro Glu Asn Leu Leu Leu Asp Lys Lys Asn Arg Arg Ile Lys Ile  
           245                  250                  255

Ala Asp Phe Gly Met Ala Ala Leu Glu Leu Pro Asn Lys Leu Leu Lys  
           260                  265                  270

Thr Ser Cys Gly Ser Pro His Tyr Ala Ser Pro Glu Ile Val Met Gly  
           275                  280                  285

Arg Pro Tyr His Gly Gly Pro Ser Asp Val Trp Ser Cys Gly Ile Val  
           290                  295                  300

Leu Phe Ala Leu Leu Thr Gly His Leu Pro Phe Asn Asp Asp Asn Ile  
           305                  310                  315                  320

Lys Lys Leu Leu Leu Lys Val Gln Ser Gly Lys Tyr Gln Met Pro Ser  
                   325                  330                  335  
 Asn Leu Ser Ser Glu Ala Arg Asp Leu Ile Ser Lys Ile Leu Val Ile  
                   340                  345                  350  
 Asp Pro Glu Lys Arg Ile Thr Thr Gln Glu Ile Leu Lys His Pro Leu  
                   355                  360                  365  
 Ile Lys Lys Tyr Asp Asp Leu Pro Val Asn Lys Val Leu Arg Lys Met  
                   370                  375                  380  
 Arg Lys Asp Asn Met Ala Arg Gly Lys Ser Asn Ser Asp Leu His Leu  
                   385                  390                  395                  400  
 Leu Asn Asn Val Ser Pro Ser Ile Val Thr Leu His Ser Lys Gly Glu  
                   405                  410                  415  
 Ile Asp Glu Ser Ile Leu Arg Ser Leu Gln Ile Leu Trp His Gly Val  
                   420                  425                  430  
 Ser Arg Glu Leu Ile Thr Ala Lys Leu Leu Gln Lys Pro Met Ser Glu  
                   435                  440                  445  
 Glu Lys Leu Phe Tyr Ser Leu Leu Leu Gln Tyr Lys Gln Arg His Ser  
                   450                  455                  460  
 Ile Ser Leu Ser Ser Ser Glu Asn Lys Lys Ser Ala Thr Glu Ser  
                   465                  470                  475                  480  
 Ser Val Asn Glu Pro Arg Ile Glu Tyr Ala Ser Lys Thr Ala Asn Asn  
                   485                  490                  495  
 Thr Gly Leu Arg Ser Glu Asn Asn Asp Val Lys Thr Leu His Ser Leu  
                   500                  505                  510  
 Glu Ile His Ser Glu Asp Thr Ser Thr Val Asn Gln Asn Asn Ala Ile  
                   515                  520                  525  
 Thr Gly Val Asn Thr Glu Ile Asn Ala Pro Val Leu Ala Gln Lys Ser  
                   530                  535                  540  
 Gln Phe Ser Ile Asn Thr Leu Ser Gln Pro Glu Ser Asp Lys Ala Glu  
                   545                  550                  555                  560  
 Ala Glu Ala Val Thr Leu Pro Pro Ala Ile Pro Ile Phe Asn Ala Ser  
                   565                  570                  575  
 Ser Ser Arg Ile Phe Arg Asn Ser Tyr Thr Ser Ile Ser Ser Arg Ser  
                   580                  585                  590  
 Arg Arg Ser Leu Arg Leu Ser Asn Ser Arg Leu Ser Leu Ser Ala Ser  
                   595                  600                  605  
 Thr Ser Arg Glu Thr Val His Asp Asn Glu Met Pro Leu Pro Gln Leu  
                   610                  615                  620

Pro Lys Ser Pro Ser Arg Tyr Ser Leu Ser Arg Arg Ala Ile His Ala  
 625 630 635 640

Ser Pro Ser Thr Lys Ser Ile His Lys Ser Leu Ser Arg Lys Asn Ile  
 645 650 655

Ala Ala Thr Val Ala Ala Arg Arg Thr Leu Gln Asn Ser Ala Ser Lys  
 660 665 670

Arg Ser Leu Tyr Ser Leu Gln Ser Ile Ser Lys Arg Ser Leu Asn Leu  
 675 680 685

Asn Asp Leu Leu Val Phe Asp Asp Pro Leu Pro Ser Lys Lys Pro Ala  
 690 695 700

Ser Glu Asn Val Asn Lys Ser Glu Pro His Ser Leu Glu Ser Asp Ser  
 705 710 715 720

Asp Phe Glu Ile Leu Cys Asp Gln Ile Leu Phe Gly Asn Ala Leu Asp  
 725 730 735

Arg Ile Leu Glu Glu Glu Asp Asn Glu Lys Glu Arg Asp Thr Gln  
 740 745 750

Arg Gln Arg Gln Asn Asp Thr Lys Ser Ser Ala Asp Thr Phe Thr Ile  
 755 760 765

Ser Gly Val Ser Thr Asn Lys Glu Asn Glu Gly Pro Glu Tyr Pro Thr  
 770 775 780

Lys Ile Glu Lys Asn Gln Phe Asn Met Ser Tyr Lys Pro Ser Glu Asn  
 785 790 795 800

Met Ser Gly Leu Ser Ser Phe Pro Ile Phe Glu Lys Glu Asn Thr Leu  
 805 810 815

Ser Ser Ser Tyr Leu Glu Glu Gln Lys Pro Lys Arg Ala Ala Leu Ser  
 820 825 830

Asp Ile Thr Asn Ser Phe Asn Lys Met Asn Lys Gln Glu Gly Met Arg  
 835 840 845

Ile Glu Lys Lys Ile Gln Arg Glu Gln Leu Gln Lys Lys Asn Asp Arg  
 850 855 860

Pro Ser Pro Leu Lys Pro Ile Gln His Gln Glu Leu Arg Val Asn Ser  
 865 870 875 880

Leu Pro Asn Asp Gln Gly Lys Pro Ser Leu Ser Leu Asp Pro Arg Arg  
 885 890 895

Asn Ile Ser Gln Pro Val Asn Ser Lys Val Glu Ser Leu Leu Gln Gly  
 900 905 910

Leu Lys Phe Lys Lys Glu Pro Ala Ser His Trp Thr His Glu Arg Gly  
 915 920 925

Ser Leu Phe Met Ser Glu His Val Glu Asp Glu Lys Pro Val Lys Ala  
 930 935 940  
 Ser Asp Val Ser Ile Glu Ser Ser Tyr Val Pro Leu Thr Thr Val Ala  
 945 950 955 960  
 Thr Ser Ser Arg Asp Pro Ser Val Leu Ala Glu Ser Ser Thr Ile Gln  
 965 970 975  
 Lys Pro Met Leu Ser Leu Pro Ser Ser Phe Leu Asn Thr Ser Met Thr  
 980 985 990  
 Phe Lys Asn Leu Ser Gln Ile Leu Ala Asp Asp Gly Asp Asp Lys His  
 995 1000 1005  
 Leu Ser Val Pro Gln Asn Gln Ser Arg Ser Val Ala Met Ser His Pro  
 1010 1015 1020  
 Leu Arg Lys Gln Ser Ala Lys Ile Ser Leu Thr Pro Arg Ser Asn Leu  
 1025 1030 1035 1040  
 Asn Ala Asn Leu Ser Val Lys Arg Asn Gln Gly Ser Pro Gly Ser Tyr  
 1045 1050 1055  
 Leu Ser Asn Asp Leu Asp Gly Ile Ser Asp Met Thr Phe Ala Met Glu  
 1060 1065 1070  
 Ile Pro Thr Asn Thr Phe Thr Ala Gln Ala Ile Gln Leu Met Asn Asn  
 1075 1080 1085  
 Asp Thr Asp Asn Asn Lys Ile Asn Thr Ser Pro Lys Ala Ser Ser Phe  
 1090 1095 1100  
 Thr Lys Glu Lys Val Ile Lys Ser Ala Ala Tyr Ile Ser Lys Glu Lys  
 1105 1110 1115 1120  
 Glu Pro Asp Asn Ser Asp Thr Asn Tyr Ile Pro Asp Tyr Thr Ile Pro  
 1125 1130 1135  
 Asn Thr Tyr Asp Glu Lys Ala Ile Asn Ile Phe Glu Asp Ala Pro Ser  
 1140 1145 1150  
 Asp Glu Gly Ser Leu Asn Thr Ser Ser Glu Ser Asp Ser Arg Ala  
 1155 1160 1165  
 Ser Val His Arg Lys Ala Val Ser Ile Asp Thr Met Ala Thr Thr Asn  
 1170 1175 1180  
 Val Leu Thr Pro Ala Thr Asn Val Arg Val Ser Leu Tyr Trp Asn Asn  
 1185 1190 1195 1200  
 Asn Ser Ser Gly Ile Pro Arg Glu Thr Thr Glu Glu Ile Leu Ser Lys  
 1205 1210 1215  
 Leu Arg Leu Ser Pro Glu Asn Pro Ser Asn Thr His Met Gln Lys Arg  
 1220 1225 1230

Phe Ser Ser Thr Arg Gly Ser Arg Asp Ser Asn Ala Leu Gly Ile Ser  
 1235 1240 1245  
 Gln Ser Leu Gln Ser Met Phe Lys Asp Leu Glu Glu Asp Gln Asp Gly  
 1250 1255 1260  
 His Thr Ser Gln Ala Asp Ile Leu Glu Ser Ser Met Ser Tyr Ser Lys  
 1265 1270 1275 1280  
 Arg Arg Pro Ser Glu Glu Ser Val Asn Pro Lys Gln Arg Val Thr Met  
 1285 1290 1295  
 Leu Phe Asp Glu Glu Glu Ser Lys Lys Val Gly Gly Lys  
 1300 1305 1310  
 Ile Lys Glu Glu His Thr Lys Leu Asp Asn Lys Ile Ser Glu Glu Ser  
 1315 1320 1325  
 Ser Gln Leu Val Leu Pro Val Val Glu Lys Lys Glu Asn Ala Asn Asn  
 1330 1335 1340  
 Thr Glu Asn Asn Tyr Ser Lys Ile Pro Lys Pro Ser Thr Ile Lys Val  
 1345 1350 1355 1360  
 Thr Lys Asp Thr Ala Met Glu Ser Asn Thr Gln Thr His Thr Lys Lys  
 1365 1370 1375  
 Pro Ile Leu Lys Ser Val Gln Asn Val Glu Val Glu Ala Pro Ser  
 1380 1385 1390  
 Ser Asp Lys Lys Asn Trp Phe Val Lys Leu Phe Gln Asn Phe Ser Ser  
 1395 1400 1405  
 His Asn Asn Ala Thr Lys Ala Ser Lys Asn His Val Thr Asn Ile Ser  
 1410 1415 1420  
 Phe Asp Asp Ala His Met Leu Thr Leu Asn Glu Phe Asn Lys Asn Ser  
 1425 1430 1435 1440  
 Ile Asp Tyr Gln Leu Lys Asn Leu Asp His Lys Phe Gly Arg Lys Val  
 1445 1450 1455  
 Val Glu Tyr Asp Cys Lys Phe Val Lys Gly Asn Phe Lys Phe Lys Ile  
 1460 1465 1470  
 Lys Ile Thr Ser Thr Pro Asn Ala Ser Ser Val Ile Thr Val Lys Lys  
 1475 1480 1485  
 Arg Ser Lys His Ser Asn Thr Ser Ser Asn Lys Ala Phe Glu Lys Phe  
 1490 1495 1500  
 Asn Asp Asp Val Glu Arg Val Ile Arg Asn Ala Gly Arg Ser  
 1505 1510 1515

<210> 12  
 <211> 1037

&lt;212&gt; PRT

&lt;213&gt; Saccharomyces cerevisiae

&lt;400&gt; 12

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Thr | Val | Ala | Asn | Thr | Glu | Thr | His | Ser | Ala | Ala | Lys | Pro | Ser | Ser |
| 1   |     |     |     |     |     | 5   |     |     |     | 10  |     |     |     |     | 15  |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Thr | Ile | Gly | Pro | Trp | Lys | Leu | Gly | Glu | Thr | Leu | Gly | Phe | Gly | Ser | Thr |
|     |     |     |     |     |     | 20  |     |     | 25  |     |     |     |     | 30  |     |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Gly | Lys | Val | Gln | Leu | Ala | Gln | His | Glu | Arg | Thr | Gly | His | Arg | Thr | Ala |
|     |     |     |     |     |     | 35  |     |     | 40  |     |     |     | 45  |     |     |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Val | Lys | Val | Ile | Ser | Lys | Ser | Ile | Phe | Asn | Asn | Asn | Gly | Asn | His | Ser |
|     |     |     |     |     |     | 50  |     |     | 55  |     |     |     | 60  |     |     |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Asn | Asp | Asp | Ser | Val | Leu | Pro | Tyr | Asn | Ile | Glu | Arg | Glu | Ile | Val | Ile |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Met | Lys | Leu | Leu | Ser | His | Pro | Asn | Val | Leu | Ser | Leu | Tyr | Asp | Val | Trp |
|     |     |     |     |     |     | 85  |     |     | 90  |     |     |     |     | 95  |     |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Glu | Thr | Asn | Asn | Asn | Leu | Tyr | Leu | Ile | Leu | Glu | Tyr | Ala | Glu | Lys | Gly |
|     |     |     |     |     | 100 |     |     |     | 105 |     |     |     | 110 |     |     |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Glu | Leu | Phe | Asn | Leu | Leu | Val | Asp | His | Gly | Pro | Leu | Pro | Glu | Arg | Glu |
|     |     |     |     |     | 115 |     |     | 120 |     |     |     | 125 |     |     |     |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Ala | Ile | Asn | Cys | Phe | Arg | Gln | Ile | Ile | Ile | Gly | Ile | Ser | Tyr | Cys | His |
|     |     |     |     |     | 130 |     |     | 135 |     |     |     | 140 |     |     |     |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Ala | Leu | Gly | Ile | Val | His | Arg | Asp | Leu | Lys | Pro | Glu | Asn | Leu | Leu | Leu |
|     |     |     |     |     | 145 |     |     | 150 |     |     | 155 |     |     | 160 |     |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Asp | Ser | Phe | Tyr | Asn | Ile | Lys | Ile | Ala | Asp | Phe | Gly | Met | Ala | Ala | Leu |
|     |     |     |     |     | 165 |     |     |     | 170 |     |     |     | 175 |     |     |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Gln | Thr | Asp | Ala | Asp | Leu | Leu | Glu | Thr | Ser | Cys | Gly | Ser | Pro | His | Tyr |
|     |     |     |     |     | 180 |     |     | 185 |     |     |     | 190 |     |     |     |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Ala | Ala | Pro | Glu | Ile | Val | Ser | Gly | Leu | Pro | Tyr | Glu | Gly | Phe | Ala | Ser |
|     |     |     |     |     | 195 |     |     | 200 |     |     |     | 205 |     |     |     |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Asp | Val | Trp | Ser | Cys | Gly | Val | Ile | Leu | Phe | Ala | Leu | Leu | Thr | Gly | Arg |
|     |     |     |     |     | 210 |     |     | 215 |     |     |     | 220 |     |     |     |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Leu | Pro | Phe | Asp | Glu | Glu | Asn | Gly | Asn | Val | Arg | Asp | Leu | Leu | Leu | Lys |
|     |     |     |     |     | 225 |     |     | 230 |     |     | 235 |     |     | 240 |     |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Val | Gln | Lys | Gly | Gln | Phe | Glu | Met | Pro | Asn | Asp | Thr | Glu | Ile | Ser | Arg |
|     |     |     |     |     | 245 |     |     |     | 250 |     |     |     | 255 |     |     |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Asp | Ala | Gln | Asp | Leu | Ile | Gly | Lys | Ile | Leu | Val | Val | Asp | Pro | Arg | Gln |
|     |     |     |     |     | 260 |     |     | 265 |     |     |     | 270 |     |     |     |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Arg | Ile | Lys | Ile | Arg | Asp | Ile | Leu | Ser | His | Pro | Leu | Leu | Lys | Lys | Tyr |
|     |     |     |     |     | 275 |     |     | 280 |     |     |     | 285 |     |     |     |

Gln Thr Ile Lys Asp Ser Lys Ser Ile Lys Asp Leu Pro Arg Glu Asn  
 290 295 300  
 Thr Tyr Leu Tyr Pro Leu Ala Asp Ser Asn Asn His Thr Ser Ala Ser  
 305 310 315 320  
 Ile Asp Asp Ser Ile Leu Gln Asn Leu Val Val Leu Trp His Gly Arg  
 325 330 335  
 His Ala Asp Asp Ile Val Ser Lys Leu Lys Glu Asn Gly Thr Asn Lys  
 340 345 350  
 Glu Lys Ile Leu Tyr Ala Leu Leu Tyr Arg Phe Lys Leu Asp Ser Val  
 355 360 365  
 Arg Gly Ser Asn Lys Lys Asn Arg Asn Lys Ile Lys Lys Thr Lys Lys  
 370 375 380  
 Asn Lys Arg Ser Ser Thr Leu Ser Ser Ser Ser Leu Leu Leu Asn  
 385 390 395 400  
 Asn Arg Ser Ile Gln Ser Thr Pro Arg Arg Arg Thr Ser Lys Arg His  
 405 410 415  
 Ser Arg Glu Phe Ser Ser Ser Arg Lys Arg Ser Ser Phe Leu Leu Ser  
 420 425 430  
 Ser Asn Pro Thr Asp Ser Ser Pro Ile Pro Leu Arg Ser Ser Lys Arg  
 435 440 445  
 Ile Thr His Ile Asn Val Ala Ser Ala Asn Thr Gln Ala Thr Pro Ser  
 450 455 460  
 Gly Val Pro Asn Pro His Lys Arg Asn Ser Lys Lys Arg Ser Ser Lys  
 465 470 475 480  
 Arg Leu Ser Tyr Met Pro Asn Thr Lys Arg Ser Ser Leu Thr Ser Lys  
 485 490 495  
 Ser Leu Ser Asn Phe Thr Asn Leu Ile Asp Asp Asp Asp Trp Glu Tyr  
 500 505 510  
 Ile Glu Lys Asp Ala Lys Arg Thr Ser Ser Asn Phe Ala Thr Leu Ile  
 515 520 525  
 Asp Glu Ile Phe Glu Pro Glu Lys Phe Glu Leu Ala Lys Arg Glu Lys  
 530 535 540  
 Ala Glu Leu Gln Arg Lys Val Gln Glu Ala Lys Arg Gln Ser Val Asn  
 545 550 555 560  
 Ala Gln Lys Ile Asn Glu Asp Glu Phe Gly Ser Glu Val Ser Asp Gly  
 565 570 575  
 Met Lys Glu Leu Lys Lys Ile Asn Asp Lys Val Ser Ser Pro Leu Ile  
 580 585 590

Asn Tyr Glu Phe Ser Gln Gln Glu Leu Leu Gln Asp Ile Asp Thr Leu  
 595 600 605  
 Leu Thr Asn Arg Tyr Gln Leu Ser Ser Tyr Thr Arg Pro Ile Ser Arg  
 610 615 620  
 Leu Asp Pro Gly Leu Thr Pro Val Thr Glu Thr Leu Pro Asn Asn Leu  
 625 630 635 640  
 Lys Glu Lys Thr Ala Leu Leu Gln Asp Thr Glu Lys Lys Ile Ile Glu  
 645 650 655  
 Thr Ile Arg Arg Ser Lys Phe Leu Gly Ser Leu Leu Asn Val Arg Gly  
 660 665 670  
 Gly Leu Ser Pro Gly Lys Ser Glu Leu Ala Pro Ile Glu Glu Ser Pro  
 675 680 685  
 Ile Val Ser Thr Thr Pro Leu Ile Tyr Asn Asp Arg Met Glu Pro Arg  
 690 695 700  
 Arg Ile Ser Asp Val Glu Val Pro His Phe Thr Arg Lys Ser Lys His  
 705 710 715 720  
 Phe Thr Thr Ala Asn Asn Arg Arg Ser Val Leu Ser Leu Tyr Ala Lys  
 725 730 735  
 Asp Ser Ile Lys Asp Leu Asn Glu Phe Leu Ile Lys Glu Asp Pro Asp  
 740 745 750  
 Leu Pro Pro Gln Gly Ser Thr Asp Asn Glu Ser Arg Ser Glu Asp Pro  
 755 760 765  
 Glu Ile Ala Glu Ser Ile Thr Asp Ser Arg Asn Ile Gln Tyr Asp Glu  
 770 775 780  
 Asp Asp Ser Lys Asp Gly Asp Asn Val Asn Asn Asp Asn Ile Leu Ser  
 785 790 795 800  
 Asp Phe Pro Gln Gly Val Gly Ile Ser Gln Glu Tyr Asp Met Lys Asp  
 805 810 815  
 Lys Asn Pro Asn Gln Ser Pro Ile Ser Lys Ser Ala Glu Pro Thr Leu  
 820 825 830  
 Val Val Lys Leu Pro Ser Leu Ser Ser Phe Gln Gly Lys Asn Ala Ser  
 835 840 845  
 Gly Leu Gly Leu Tyr Gln Arg Glu Pro Ser Lys Val Thr Leu Pro Ser  
 850 855 860  
 Leu Thr Ser Asn Asn Ser Ser Val Gly Glu Asn Ile Glu Asp Gly Ala  
 865 870 875 880  
 Glu Lys Gly Thr Glu Ser Glu Lys Ile Ala Ala Ser Leu Ser Asp Asp  
 885 890 895

Asp Leu Lys Glu Asp Asn Asp Lys Lys Asp Asn Asp Thr Val Asn Ala  
 900 905 910  
 Pro Thr Thr Val Lys Lys Pro Pro Asn Ser Val Leu Leu Lys Lys Phe  
 915 920 925  
 Ser Lys Gly Lys Ile Leu Glu Leu Glu Ile His Ala Lys Ile Pro Glu  
 930 935 940  
 Lys Arg Leu Tyr Glu Gly Leu His Lys Leu Leu Glu Gly Trp Lys Gln  
 945 950 955 960  
 Tyr Gly Leu Lys Asn Leu Val Phe Asn Ile Thr Asn Met Ile Ile Thr  
 965 970 975  
 Gly Lys Leu Val Asn Asp Ser Ile Leu Phe Leu Arg Ser Thr Leu Phe  
 980 985 990  
 Glu Ile Met Val Leu Pro Asn Gly Asp Gly Arg Ser Leu Ile Lys Phe  
 995 1000 1005  
 Asn Lys Lys Thr Gly Ser Thr Lys Thr Leu Thr Lys Leu Ala Thr Glu  
 1010 1015 1020  
 Ile Gln Ile Ile Leu Gln Lys Glu Gly Val Leu Asp Lys  
 1025 1030 1035  
  
 <210> 13  
 <211> 775  
 <212> PRT  
 <213> Schizosaccharomyces pombe  
  
 <400> 13  
 Met Ser Thr Ile Ser Glu Val Gly Pro Trp Glu Leu Gly Leu Ser Leu  
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 Gly Ser Gly Gly Pro Asn Ser Ser Arg Leu Ala Lys His Arg Glu Thr  
 20 25 30  
  
 Gly Gln Leu Ala Val Val Lys Pro Ile Val Gly Trp Ser Glu Leu Thr  
 35 40 45  
  
 Ser Ser Gln Gln Ala Arg Ile Glu Gly Glu Leu Val Leu Leu Arg Leu  
 50 55 60  
  
 Ile Glu His Pro Asn Val Leu Gln Leu Ile Asp Val Ile Ser Ala Gln  
 65 70 75 80  
  
 Glu Gln Leu Phe Val Val Val Glu Tyr Met Pro Gly Gly Glu Leu Phe  
 85 90 95  
  
 Asp Cys Met Leu Arg Lys Gly Ser Phe Thr Glu Gln Asp Thr Ala Lys  
 100 105 110  
  
 Phe Leu Trp Gln Ile Leu Cys Gly Leu Glu Tyr Cys His Lys Leu His  
 115 120 125

Ile Cys His Arg Asp Leu Lys Pro Glu Asn Leu Tyr Leu Asp Ala His  
 130 135 140

Gly Ser Ile Lys Ile Gly Glu Phe Gly Met Ala Ser Ile Gln Gln Pro  
 145 150 155 160

Gly Lys Leu Leu Gln Thr Ser Cys Gly Ser Pro His Tyr Ala Ser Pro  
 165 170 175

Glu Ile Ile Met Gly Arg Ser Tyr Asp Gly Cys Ala Ser Asp Ile Trp  
 180 185 190

Ser Cys Gly Ile Ile Phe Phe Ala Leu Leu Thr Gly Lys Leu Pro Phe  
 195 200 205

Asp Asp Asp Asn Ile Arg Ser Leu Leu Leu Lys Val Cys Gln Gly Gln  
 210 215 220

Phe Glu Met Pro Ser Asn Ile Ser Pro Gln Ala Gln His Leu Leu Tyr  
 225 230 235 240

Arg Met Leu Asp Val Asp Ser Ser Thr Arg Ile Thr Met Glu Gln Ile  
 245 250 255

Arg Glu His Pro Phe Leu Ser Cys Phe Val His Pro Asn Ile Ser Ile  
 260 265 270

Pro Ile Ile Ser Ala Pro Ile Gln Pro Ile Asp Pro Leu Ile Val Gln  
 275 280 285

His Leu Ser Leu Val Phe Arg Cys Ser Asp Asp Pro Met Pro Leu Tyr  
 290 295 300

Glu Lys Leu Ala Ser Gln Ser Pro Leu Val Glu Lys Thr Leu Tyr Thr  
 305 310 315 320

Leu Leu Ser Arg His Leu His Pro Pro Ser Ser Ala Ala Val Asp Arg  
 325 330 335

Asn Arg Ala Val Val Asp Asp Leu Leu Gly Thr Ala Ala Ser Asn Gly  
 340 345 350

Gln Gln Met Asp Glu Glu Glu Ile Glu Gln Ala Ile Asn Ile Pro Thr  
 355 360 365

Leu Ala Pro Tyr Pro Ile Ser Tyr Ala Ala Glu Ser Val Pro Arg Pro  
 370 375 380

Ala Thr Ser Ala Ser Pro Phe Leu Thr Pro Val Thr Thr Ser Gly Thr  
 385 390 395 400

Phe Asn Tyr Ser Phe Asn Ala Thr Asn Pro Gln Ser Ile Leu Gln Arg  
 405 410 415

Pro Ala Thr Thr Ser Ser Ala Val Pro Gln Leu Pro Lys Ser Val Thr  
 420 425 430

Pro Gly Leu Ala Tyr Pro His Asp Ser Ser Met Leu Ser Ser Asn Tyr  
 435 440 445  
 Arg Pro Pro Ser Ala Leu Ser Pro Arg Asn Phe Asn Val Ser Ile Asn  
 450 455 460  
 Asp Pro Glu Val Gln Leu Ser Arg Arg Ala Thr Ser Leu Asp Met Ser  
 465 470 475 480  
 Asn Asp Phe Arg Met Asn Glu Asn Asp Pro Ser Ile Val Gly Asn Leu  
 485 490 495  
 Ala Ala Ser Asn Phe Pro Thr Gly Met Gly Pro Pro Arg Lys Arg Val  
 500 505 510  
 Thr Ser Arg Met Ser Glu His Thr Gly Asn Arg Val Val Ser Phe Pro  
 515 520 525  
 Arg Gly Ser Ala Phe Asn Pro Arg Val Thr Arg Phe Asn Val Gly Asn  
 530 535 540  
 Glu Gln Phe Ser Asn Asn Ile Asp Asn Asn Asn Tyr Asn Gln Pro Tyr  
 545 550 555 560  
 Ala Asn Ala Thr Met Asn Asn Ser Arg Arg Leu Arg Thr Pro Ser Gly  
 565 570 575  
 Glu Arg Ser Met Arg Ala Asp Leu Ser Gln Ser Pro Ala Ser Tyr Asp  
 580 585 590  
 Ser Leu Asn Val Pro Lys His Arg Arg Arg Gln Ser Leu Phe Ser Pro  
 595 600 605  
 Ser Ser Thr Lys Lys Leu Ser Gly Ser Pro Phe Gln Pro Lys Arg  
 610 615 620  
 Ser Phe Leu Arg Arg Leu Phe Ser Ser Glu Pro Ser Cys Lys Cys Val  
 625 630 635 640  
 Tyr Ala Ser Leu Val Ala Ser Glu Leu Glu His Glu Ile Leu Glu Val  
 645 650 655  
 Leu Arg Arg Trp Gln Leu Leu Gly Ile Gly Ile Ala Asp Ile Ile Tyr  
 660 665 670  
 Asp Ser Val Ser Ala Ser Ile Ser Ala Arg Ile Lys Arg Gln Asn Ser  
 675 680 685  
 Leu Asn Leu Lys Pro Val Arg Phe Arg Ile Ser Val Leu Ala Glu Phe  
 690 695 700  
 Phe Gly Ser Gln Ala Val Phe Val Leu Glu Ser Gly Ser Ser Thr Thr  
 705 710 715 720  
 Phe Asp His Leu Ala Thr Glu Phe Gln Leu Ile Phe Glu Asp Lys Gly  
 725 730 735

Phe Leu Asp Asn Leu Glu Leu Ser Tyr Phe Gln Ala Ser Ala Ser Arg  
 740 745 750  
 Pro Val Ser Arg Met Ser Val Ser Ser Ser Pro Phe Ala Val Phe Arg  
 755 760 765  
 Gln Arg Gln Ser Val Gln Ser  
 770 775

<210> 14  
 <211> 593  
 <212> PRT  
 <213> Schizosaccharomyces pombe

<400> 14  
 Met Val Lys Arg His Lys Asn Thr Ile Gly Val Trp Arg Leu Gly Lys  
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Thr Leu Gly Thr Gly Ser Thr Ser Cys Val Arg Leu Ala Lys His Ala  
 20 25 30

Lys Thr Gly Asp Leu Ala Ala Ile Lys Ile Ile Pro Ile Arg Tyr Ala  
 35 40 45

Ser Ile Gly Met Glu Ile Leu Met Met Arg Leu Leu Arg His Pro Asn  
 50 55 60

Ile Leu Arg Leu Tyr Asp Val Trp Thr Asp His Gln His Met Tyr Leu  
 65 70 75 80

Ala Leu Glu Tyr Val Pro Asp Gly Glu Leu Phe His Tyr Ile Arg Lys  
 85 90 95

His Gly Pro Leu Ser Glu Arg Glu Ala Ala His Tyr Leu Ser Gln Ile  
 100 105 110

Leu Asp Ala Val Ala His Cys His Arg Phe Arg Phe Arg His Arg Asp  
 115 120 125

Leu Lys Leu Glu Asn Ile Leu Ile Lys Val Asn Glu Gln Gln Ile Lys  
 130 135 140

Ile Ala Asp Phe Gly Met Ala Thr Val Glu Pro Asn Asp Ser Cys Leu  
 145 150 155 160

Glu Asn Tyr Cys Gly Ser Leu His Tyr Leu Ala Pro Glu Ile Val Ser  
 165 170 175

His Lys Pro Tyr Arg Gly Ala Pro Ala Asp Val Trp Ser Cys Gly Val  
 180 185 190

Ile Leu Tyr Ser Leu Leu Ser Asn Lys Leu Pro Phe Gly Gly Gln Asn  
 195 200 205

Thr Asp Val Ile Tyr Asn Lys Ile Arg His Gly Ala Tyr Asp Leu Pro  
 210 215 220

Ser Ser Ile Ser Ser Ala Ala Gln Asp Leu Leu His Arg Met Leu Asp  
 225 230 235 240  
 Val Asn Pro Ser Thr Arg Ile Thr Ile Pro Glu Val Phe Ser His Pro  
 245 250 255  
 Phe Leu Met Gly Cys Thr Ser Leu Ser Ser Met Asp Ser Thr Thr Pro  
 260 265 270  
 Pro Thr Pro Ser Leu Ser Ile Asp Glu Ile Asp Pro Leu Val Val Asp  
 275 280 285  
 Cys Met Cys Val Leu Trp Lys Lys Ser Ser Ser Lys Lys Val Val Arg  
 290 295 300  
 Arg Leu Gln Gln Arg Asp Asp Asn Asp Glu Lys Tyr Val Tyr Lys Val  
 305 310 315 320  
 Leu Ser Glu Ile Leu Arg Asp Asp Met Leu Lys Lys Gln Arg Phe Asp  
 325 330 335  
 Glu Asn Lys Tyr Leu Ser Leu Tyr Asp Leu Ile His Asp Asn Asn Leu  
 340 345 350  
 Phe Thr Lys Ala Ser Ile Ser Thr Thr Ser Leu Val Lys Ser Asn Val  
 355 360 365  
 Ser Thr Asn Ser Arg Lys Ser Ser Asn Phe Glu Asp Glu Leu Ala Arg  
 370 375 380  
 Arg Val Ser Ser Pro Leu Ser Ala Leu Asn Gln Met Ser Gln Ser Pro  
 385 390 395 400  
 Ile Pro Ile Arg Val Ser Ser Asp Lys Asp Tyr Asp Ser Tyr Ala Cys  
 405 410 415  
 His Glu Val Val Ser Asn Pro Ser Thr Leu Asp Asp Asp Tyr Asn Tyr  
 420 425 430  
 Met Phe Val Cys Pro Pro Glu Glu Tyr Thr Tyr Ser Thr Asp Asn Val  
 435 440 445  
 Arg Thr Asp Ser Leu Asp Leu Gln Ser Leu Pro Thr Pro Thr Leu Glu  
 450 455 460  
 Gln Leu Glu Ser Val Pro Phe Asn Arg Tyr Gly Tyr Val Arg Ile Phe  
 465 470 475 480  
 Pro Ser Thr Thr Leu Ser Ser Thr Ala Ser Gly Tyr Tyr Thr Pro Asp  
 485 490 495  
 Ser Leu Ser Thr Pro Glu Pro Ser Ile Asp Gly Leu Thr Asn Leu Asp  
 500 505 510  
 Asp Val Gln Val Gly Gly Phe Val Gln Gly Ser Gly Asn Gln Asn Arg  
 515 520 525

|                                                                 |     |     |     |  |
|-----------------------------------------------------------------|-----|-----|-----|--|
| Arg Pro Ile Ser Phe Pro Val Ile Ser Asn Met Gln Pro Asn Ile Thr |     |     |     |  |
| 530                                                             | 535 | 540 |     |  |
| Asn Val Arg Ser Ala Ser Ala Pro Leu Cys Ser Ser Pro Val Pro Ser |     |     |     |  |
| 545                                                             | 550 | 555 | 560 |  |
| Arg Arg Tyr Ser Gln Tyr Ala Thr Asn Ala Arg Tyr Thr Pro Arg Lys |     |     |     |  |
| 565                                                             | 570 | 575 |     |  |
| Val Ser Ser Gly Ser Val Leu Arg Lys Ile Ser Ser Phe Phe Arg Lys |     |     |     |  |
| 580                                                             | 585 | 590 |     |  |

Asp

|                                                                 |     |     |     |  |
|-----------------------------------------------------------------|-----|-----|-----|--|
| <210> 15                                                        |     |     |     |  |
| <211> 1462                                                      |     |     |     |  |
| <212> PRT                                                       |     |     |     |  |
| <213> Candida albicans                                          |     |     |     |  |
| <br>                                                            |     |     |     |  |
| <400> 15                                                        |     |     |     |  |
| Met Ser Thr Val Val Asn Arg Arg Ser Ser His Gln Phe Asp Ser Pro |     |     |     |  |
| 1                                                               | 5   | 10  | 15  |  |
| Ser Asn His Leu Asp His Ser Ser Ser Met Asn Val Asp Lys Val Val |     |     |     |  |
| 20                                                              | 25  | 30  |     |  |
| Gln Ser Val Thr Asn Ala Thr Lys Arg Leu Ser Gln Ile Ser Thr Asn |     |     |     |  |
| 35                                                              | 40  | 45  |     |  |
| Thr Asn Asn Ser Asn Lys Lys Arg Lys Thr Gln Asn Lys Ile Gly Pro |     |     |     |  |
| 50                                                              | 55  | 60  |     |  |
| Trp Lys Leu Gly Arg Thr Leu Gly Arg Gly Ser Thr Gly Arg Val Arg |     |     |     |  |
| 65                                                              | 70  | 75  | 80  |  |
| Leu Ala Lys Asn Thr Thr Gly Gln Leu Ala Ala Val Lys Ile Val     |     |     |     |  |
| 85                                                              | 90  | 95  |     |  |
| Pro Lys Ser Asn Phe Lys Lys Leu Glu Asn Pro Lys Tyr Lys Arg Ser |     |     |     |  |
| 100                                                             | 105 | 110 |     |  |
| Lys Glu Asp Ala Thr Arg Leu Pro Tyr Gly Ile Glu Arg Glu Ile Ile |     |     |     |  |
| 115                                                             | 120 | 125 |     |  |
| Ile Met Lys Leu Ile Ser His Pro Asn Ile Met Gly Leu Tyr Asp Val |     |     |     |  |
| 130                                                             | 135 | 140 |     |  |
| Trp Glu Asn Lys Asn Asp Leu Tyr Leu Ile Leu Glu Tyr Ile Glu Gly |     |     |     |  |
| 145                                                             | 150 | 155 | 160 |  |
| Gly Glu Leu Phe Asp Tyr Leu Ile Lys Arg Gly Lys Leu Gln Glu Tyr |     |     |     |  |
| 165                                                             | 170 | 175 |     |  |
| Glu Ala Ile Asn Tyr Phe Lys Gln Ile Ile Asn Gly Ile Asn Tyr Leu |     |     |     |  |
| 180                                                             | 185 | 190 |     |  |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Gln | Phe | Asn | Ile | Cys | His | Arg | Asp | Leu | Lys | Pro | Glu | Asn | Leu | Leu |
| 195 |     |     |     |     |     | 200 |     |     |     |     |     | 205 |     |     |     |
| Leu | Asp | Phe | Asn | Lys | Asn | Ile | Lys | Ile | Ala | Asp | Phe | Gly | Met | Ala | Ala |
| 210 |     |     |     |     |     | 215 |     |     |     |     | 220 |     |     |     |     |
| Leu | Glu | Val | Lys | Glu | Lys | Leu | Leu | Glu | Thr | Ser | Cys | Gly | Ser | Pro | His |
| 225 |     |     |     |     | 230 |     |     |     |     | 235 |     |     |     |     | 240 |
| Tyr | Ala | Ser | Pro | Glu | Ile | Val | Ala | Gly | Lys | Asn | Tyr | His | Gly | Ala | Pro |
|     |     |     |     |     | 245 |     |     |     | 250 |     |     |     | 255 |     |     |
| Ser | Asp | Ile | Trp | Ser | Cys | Gly | Ile | Ile | Leu | Phe | Ala | Leu | Leu | Thr | Gly |
|     |     |     |     |     | 260 |     |     | 265 |     |     |     | 270 |     |     |     |
| His | Leu | Pro | Phe | Asp | Asp | Glu | Asn | Ile | Arg | Lys | Leu | Leu | Lys | Val |     |
|     |     |     |     |     |     | 275 |     | 280 |     |     |     | 285 |     |     |     |
| Gln | Ser | Gly | Lys | Phe | Asn | Met | Pro | Pro | Glu | Leu | Ser | Phe | Glu | Ala | Lys |
|     |     |     |     |     |     | 290 |     | 295 |     |     |     | 300 |     |     |     |
| Asp | Leu | Ile | Thr | Lys | Met | Leu | Lys | Val | Asn | Pro | Arg | Glu | Arg | Ile | Thr |
|     |     |     |     |     |     | 305 |     | 310 |     |     | 315 |     |     |     | 320 |
| Ile | Asp | Ala | Ile | Leu | Thr | His | Pro | Leu | Leu | Ala | Lys | Tyr | Pro | Glu | Pro |
|     |     |     |     |     |     | 325 |     |     | 330 |     |     |     | 335 |     |     |
| Thr | Val | Ser | Tyr | Ser | Ser | Thr | Thr | Thr | Leu | Asp | Ile | Asn | Ser | Ile | Asn |
|     |     |     |     |     |     | 340 |     |     | 345 |     |     |     | 350 |     |     |
| Ile | Lys | Gln | Ile | Glu | Ser | Val | Asp | Lys | Ile | Asp | Lys | Glu | Ile | Leu | Lys |
|     |     |     |     |     |     | 355 |     | 360 |     |     |     | 365 |     |     |     |
| Asn | Leu | Ser | Val | Leu | Phe | His | Asn | Cys | Asp | Glu | Lys | Thr | Ile | Ile | Ser |
|     |     |     |     |     |     | 370 |     | 375 |     |     |     | 380 |     |     |     |
| Arg | Leu | Leu | Ser | Pro | Asn | Arg | Cys | Pro | Glu | Lys | Met | Phe | Tyr | Tyr | Leu |
|     |     |     |     |     |     | 385 |     | 390 |     |     | 395 |     |     |     | 400 |
| Leu | Met | Lys | Tyr | Arg | Asn | Glu | His | Leu | Ser | Asn | Ser | Asn | Ser | Phe | Asn |
|     |     |     |     |     |     | 405 |     |     | 410 |     |     |     | 415 |     |     |
| Ser | Ser | Asn | Asp | Val | Asp | Ser | Ala | Arg | Ser | Leu | Pro | Arg | Ser | Thr | Ser |
|     |     |     |     |     |     | 420 |     |     | 425 |     |     |     | 430 |     |     |
| Tyr | Val | Lys | Thr | Thr | Val | Thr | Asp | His | Ala | Thr | Gly | Glu | Lys | His | Thr |
|     |     |     |     |     |     | 435 |     |     | 440 |     |     | 445 |     |     |     |
| Thr | Val | Lys | Lys | Ile | Gln | Gln | Ser | Ser | Ser | Ile | Tyr | Ser | Asn | Arg | Ser |
|     |     |     |     |     |     | 450 |     | 455 |     |     |     | 460 |     |     |     |
| Leu | Leu | Lys | Lys | Ser | Thr | Ser | Ala | Lys | Gly | Asn | Val | Leu | Ser | Asn | Ile |
|     |     |     |     |     |     | 465 |     | 470 |     |     | 475 |     |     |     | 480 |
| Thr | Asn | Arg | Pro | Asn | Thr | Pro | Lys | Gln | Phe | Ser | Ala | Ser | Ser | Ser | Phe |
|     |     |     |     |     |     |     |     | 485 |     |     | 490 |     |     |     | 495 |

Asn Lys Lys Lys Ala Leu His Ser Lys Thr Gln Ile Tyr Ala Ser Arg  
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 Ser Arg Asn Ala Ser Ser Arg Ser Leu Lys Ser Asn Ser Ser Thr Gly  
 515 520 525  
 Arg Asn Gly Asn Asn Ala Ser Val Thr Ser Val Asn Lys Ile Pro Glu  
 530 535 540  
 Ile Thr Gly Ala Thr Val Leu Gln Pro Ile Pro Ser Met Ala Met Asn  
 545 550 555 560  
 Arg Gly Asp Glu Gln Gln Asn Lys Thr Lys Lys Asn Leu Thr Gly Thr  
 565 570 575  
 Phe Gly Asn Lys Ser Leu Leu Asn Phe Gln Leu Ile Cys Glu Glu Val  
 580 585 590  
 Phe Glu Asn Asp Lys Glu Asn Ser Lys Pro Val Ser Lys Thr Pro Val  
 595 600 605  
 Ser Gln Leu Pro Pro Pro Pro Pro Pro Ile Glu Thr Pro Thr Ser  
 610 615 620  
 Arg Thr Asn Ser Val Lys Arg Gly Lys Thr Trp Ser Leu Ala Arg Arg  
 625 630 635 640  
 Glu Arg Glu Leu Ala Glu Gln Val Arg Gln Arg Asn Glu Ala Arg Glu  
 645 650 655  
 Asn Lys Leu Lys Ala Glu Glu Leu Ala Arg Lys Glu Leu Glu Gln Glu  
 660 665 670  
 Lys Lys Arg Ile Ala Glu Glu Lys Lys Arg Leu Glu Gln Gln Glu Arg  
 675 680 685  
 Glu Leu Asp Glu Lys Gln Lys Leu Gln Glu Lys Gln Lys Ala Ala Leu  
 690 695 700  
 Glu Lys Leu Gln Lys His Gln Ser Ala His Asp Phe Glu Gly Leu Phe  
 705 710 715 720  
 Ala Ser Asn Arg Arg Ser Val Thr Asp Met Ala Pro Ser Ser Gly Met  
 725 730 735  
 Ser Ser Leu Asp Pro Arg Ala His Met Val Ser Arg Ala Asn Thr Ile  
 740 745 750  
 Gly Ser Pro Asn Leu Ser Ser Ser Val Asn Ile Asp Glu Asn Ala  
 755 760 765  
 Ser Lys Val Leu His' Lys Phe Gly Ile Asp Val Ala Pro Ser Pro Lys  
 770 775 780  
 Arg Phe Ser Arg Ala Ser Lys Thr Ser Thr Ser Lys Asn Leu Ser Ser  
 785 790 795 800

Phe Leu Ala Pro Thr Val Ser Arg Asn Leu Ser Ser Gln Leu Lys Thr  
   805                       810                       815  
  
 Ser Ser Ser Lys Asn Leu Ala Gly Tyr Leu His Gly Thr Thr Asp Thr  
   820                       825                       830  
  
 Asn Gly Ser Ala Ile Ala Ala Lys Lys Lys Asp Asp Ser Thr Asn Glu  
   835                       840                       845  
  
 Ala Leu Thr Ile Glu Glu Phe Asn Ala Lys Glu Arg Thr Ser Met Ser  
   850                       855                       860  
  
 Pro Ser Ile Ser Lys Ala Ser Val Asn Lys Arg Asn Ser Asn Gln Ser  
   865                       870                       875                       880  
  
 Ser Tyr Tyr Arg Ser Met Phe Ser Asp Asn Gly Asn Asp Asp Asn Val  
   885                       890                       895  
  
 Thr Lys Val Arg Thr Gly Glu Ser His Leu Ser Val Gln Glu Glu Glu  
   900                       905                       910  
  
 Glu Met Asp Met Glu Asn Ala Ile Asp Glu Asp Ile Ser Leu Ile Pro  
   915                       920                       925  
  
 Asn Pro Arg Phe Ser Arg Phe Ser Phe Gly Gly Leu Leu Gly Ser Asn  
   930                       935                       940  
  
 Thr Val Ala Asn Glu Glu Gly Asp Trp Thr Ile Met Asn Ser Thr Leu  
   945                       950                       955                       960  
  
 Asn His Ser Asn Thr Val Val Arg Gly Thr His Asn Lys Ser Ser Thr  
   965                       970                       975  
  
 Met Leu Gly Leu Gly Ile Lys Met Arg Asp Thr Thr Ile Lys Glu  
   980                       985                       990  
  
 Asp Glu Glu Phe Glu Asp Glu Lys Pro Phe Ile Ser Val Pro Ser Ser  
   995                       1000                       1005  
  
 Glu Asp Asp Glu Gly Asn Thr His Lys Asn Lys Arg Gly Gly Leu Arg  
   1010                      1015                       1020  
  
 Asp Ser Gly Asn Tyr Asp Phe Asp Glu Glu His Ser Val Ala Ser Thr  
   1025                      1030                       1035                       1040  
  
 Ala Asn Thr Glu Tyr Ser Asp Val Ala Ser Gln Gly Gln Gln Met Pro  
   1045                      1050                       1055  
  
 Gly Ser His Thr Ile His Gln Leu Glu Thr Glu Leu Ser Asn Phe Asp  
   1060                      1065                       1070  
  
 - Leu Leu Ser Tyr Arg Val Ala Asp Ile Gly Lys Val Asn Lys His Lys  
   1075                      1080                       1085  
  
 Pro Ser Ile Val Asp Ser Lys Glu Thr Leu Leu Lys Asn His Ser Ser  
   1090                      1095                       1100

Asp Glu Ala Thr Ile Glu Val Lys Glu Asp Asn Asn Glu His Asp Phe  
 1105 1110 1115 1120  
 Asn Asp Lys Ile Lys Gln His Tyr Asp Asp Asn Gly Asp Ser Glu Glu  
 1125 1130 1135  
 Asp Asp Glu Asp Glu Asp Glu Glu Glu Asp Asp Asp Asp Asp Asp Asp  
 1140 1145 1150  
 Asp Ala Arg Ser Ser Phe Glu Ala Arg Pro His Ser His Asn Tyr Ser  
 1155 1160 1165  
 Leu Ala Glu Ile Thr Ser Glu Ser Pro Val Gly Gly Tyr Glu Ser  
 1170 1175 1180  
 Pro Ser Ile Ala Asn Asp Phe Lys Lys Ser Arg His Ser Thr Gly Ile  
 1185 1190 1195 1200  
 Phe Ser Thr Thr Gln Phe Pro Arg Ser Pro Tyr Val Val Asn Asn Asn  
 1205 1210 1215  
 Gly Asp Ser Asn Lys Asp Glu Asn Ser Gln Gln Gln Thr Lys His Met  
 1220 1225 1230  
 Leu Asn Asp Gly His Lys Gly Leu Ile Thr Ser Pro Val Gln Asp Thr  
 1235 1240 1245  
 Phe Gly Ser Lys Lys Pro Val Glu Ser Asn Ser Leu Phe Arg Arg Leu  
 1250 1255 1260  
 Ser Leu Asn Pro Asn Arg Ala Ala Pro Lys Ala Pro Ala Pro Pro Pro  
 1265 1270 1275 1280  
 Pro Ser Ala Pro Ile Ser Ser Ala Ala Lys Ala Asn Ile Ser Gln Pro  
 1285 1290 1295  
 Leu Ser Ser Pro Thr Lys Gly His Asn Arg Phe Ser Arg Ile Ser Ile  
 1300 1305 1310  
 Gly Ser Lys Asn Met Leu Gln Lys Glu Asp Lys Ser Thr Lys Ser Asn  
 1315 1320 1325  
 Trp Phe Lys Lys Phe Phe His Ser Leu Thr Thr Pro Ser Ala Lys Asp  
 1330 1335 1340  
 Gln Ser Gly Asn Ser Ser Ser Lys Val Ala Ser Lys Asp Ile Lys Ile  
 1345 1350 1355 1360  
 Ile Asp Thr Ser Leu Thr Ala Ala Gln Leu Ile Arg Val Ile Lys Tyr  
 1365 1370 1375  
 Gln Leu Glu Leu Lys Lys Ile Glu Gly Ser Ile Ser Lys Val Asp Ile  
 1380 1385 1390  
 Asp Glu Glu Phe Gly Leu Ile Ser Gly Val Ile Pro Ser Lys Phe Ala  
 1395 1400 1405

Asn Gly Arg Lys Leu Lys Phe Lys Ile Glu Val Ile Asp Leu Ile Asn  
 1410 1415 1420

Ser Ser Ser Leu His Val Ile Lys Met Lys Gly Asn Asp Lys Gly Phe  
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Gln Ser Leu Val Asn Ile Val Thr Phe Ile Ile Lys Lys Glu Glu Gln  
 1445 1450 1455

Asp Lys Ile Ser Arg Arg  
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 <212> PRT  
 <213> Candida albicans

<400> 16  
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Thr Leu Gly Arg Gly Ala Thr Gly Arg Val Leu Leu Ala Thr His Gln  
 35 40 45

Thr Thr Gly Gln Lys Ala Ala Val Lys Val Val Ser Lys Ser Glu Leu  
 50 55 60

Gln Asp Glu Glu Thr Glu Lys Asn Gly Asp Gly Leu Pro Tyr Gly Ile  
 65 70 75 80

Glu Arg Glu Ile Ile Met Lys Leu Leu Thr His Pro Asn Val Leu  
 85 90 95

Arg Leu Tyr Asp Val Trp Glu Thr Ser Lys Ala Leu Tyr Leu Val Leu  
 100 105 110

Glu Tyr Val Glu Gly Gly Glu Leu Phe Asp Leu Leu Val Glu Arg Gly  
 115 120 125

Pro Leu Pro Glu Val Glu Ala Ile Lys Tyr Phe Arg Gln Ile Ile Leu  
 130 135 140

Gly Thr Ala Tyr Cys His Ala Leu Gly Ile Cys His Arg Asp Leu Lys  
 145 150 155 160

Pro Glu Asn Leu Leu Asp Ser Gln Leu Asn Val Lys Leu Ala Asp  
 165 170 175

Phe Gly Met Ala Ala Leu Glu Ser Asn Gly Lys Leu Leu Glu Thr Ser  
 180 185 190

Cys Gly Ser Pro His Tyr Ala Ala Pro Glu Ile Val Ser Gly Leu Lys  
 195 200 205

Tyr His Gly Ala Ala Ser Asp Val Trp Ser Cys Gly Val Ile Leu Phe  
 210 215 220  
 Ala Leu Leu Thr Gly Arg Leu Pro Phe Asp Asp Glu Asn Ile Arg Asn  
 225 230 235 240  
 Leu Leu Leu Lys Val Gln Ala Gly Asn Phe Glu Met Pro Val Asp Glu  
 245 250 255  
 Val Ser Arg Glu Ala Arg Asp Leu Ile Ala Arg Met Leu Glu Val Asp  
 260 265 270  
 Pro Met Arg Arg Ile Ser Thr Glu Lys Ile Leu Arg His Pro Leu Leu  
 275 280 285  
 Thr Lys Tyr Pro Met Ser Asn Glu Asp Leu Ile Ser Glu Lys Ser Leu  
 290 295 300  
 Pro His Pro Gln Thr Gly Tyr Lys Ser Leu Gly Ser Val Arg Asn Ile  
 305 310 315 320  
 Asp Lys Gln Ile Leu Ser Asn Leu Thr Ile Leu Trp Asn Asp Arg Pro  
 325 330 335  
 Glu Glu Glu Ile Val Asp Cys Leu Leu Lys Asp Gly Ser Asn Pro Glu  
 340 345 350  
 Lys Thr Phe Tyr Ala Leu Leu Met Arg Tyr Lys His Asn Gln Glu Asp  
 355 360 365  
 Asn Thr Asn Asn Asn Ser Pro Lys Lys Ser Thr Ser Phe Asn Asn Lys  
 370 375 380  
 Val Val Arg Ser Gly Ser Lys Tyr Ser Leu Asn Gly Thr Pro Arg Arg  
 385 390 395 400  
 Lys Arg Ala Ser His Ile Ser Val Ser Arg Pro Thr Ser Phe Gln Tyr  
 405 410 415  
 Lys Ser Asn Pro Gly Ala Gly Ala Thr Ala Asn Arg Asn Ser Val Ala  
 420 425 430  
 Arg His Ser Val Ala Ser Ser Ala Asn Asn Ser Pro Arg Lys Ser Pro  
 435 440 445  
 Tyr Lys Ser Pro Tyr Arg Ser Pro Tyr Arg Ser Pro Tyr Lys Ser Pro  
 450 455 460  
 Ser Lys Arg Tyr Ser Tyr Asn Gln Ser Pro Thr Lys Ser Pro Tyr Gly  
 465 470 475 480  
 Arg Arg Ser Asn Ser Gln Arg Gln Phe Glu Asn Glu Pro Leu Lys Ala  
 485 490 495  
 Lys Pro Arg Asn Ile Tyr Asn Glu Ile Val Asp Ala Gln Ser Asn Phe  
 500 505 510

Ser Leu Pro Pro Ser Leu Pro Pro Ser Leu Pro Ser Lys Asp Ser Arg  
 515 520 525  
 Tyr Met Ile Asp Glu Pro Asn Gln Pro Gln Leu Gln Gln Pro Ala Leu  
 530 535 540  
 Ser Gln Val Pro Glu Asn Pro Ile Val Asp Glu Ser Pro Asp Leu Met  
 545 550 555 560  
 Gln Ser Ala Lys Ile Ser Ser Gly Lys Arg Asn Ser Ile Ile Gly Lys  
 565 570 575  
 Asn Asn Asn Asn Ser Asn Ser Asn Lys Arg Met Ser Lys Arg Lys Ser  
 580 585 590  
 Ile Arg Ala Ser Met Thr Thr Gly Leu Lys Arg Asn Ser Ile Thr Met  
 595 600 605  
 Lys Leu Leu Ser Thr Tyr Ala Lys Leu Ser Gly Asp Asp Asp Trp Glu  
 610 615 620  
 Tyr Met Asp Lys Gln Thr Lys Arg Thr Ser Ala Thr Phe Ala Ala Leu  
 625 630 635 640  
 Cys Asp Lys Ile Phe Asn Gln Glu Asp Tyr Asp Glu Glu Asp Glu Gln  
 645 650 655  
 Leu Val Asp Pro Glu Glu Lys Glu Ala Lys Glu Tyr Glu Arg Leu Met  
 660 665 670  
 Glu Leu Glu Arg Lys Lys His Glu Ala Glu Leu Lys Ala Arg Arg Glu  
 675 680 685  
 Leu Glu Lys Lys Arg Arg Gln Lys Arg Arg Ser Ile Leu Ser Ser  
 690 695 700  
 Lys Lys Leu Ser Ile Ile Val Lys Asn Asp Ala Asp Pro Asn Asn Ser  
 705 710 715 720  
 Glu Gln Glu Leu Val Asp Glu Gly Ile Lys Gln Pro Lys Arg Gln Ser  
 725 730 735  
 Lys Asn Leu Thr Ala Leu Arg Ala Leu Ser Glu Gly Asn His Ala Ser  
 740 745 750  
 Glu Glu Leu Thr Leu Glu Asp Val Glu Asn Leu Lys Arg Arg Ser Ala  
 755 760 765  
 Ser Gln Pro Val Pro Lys Arg Arg Gln Thr Pro Val Leu Thr Arg Arg  
 770 775 780  
 Pro Val Ser Arg Leu Asp Pro Leu Trp Gln Ala His Glu Asn Glu Gln  
 785 790 795 800  
 Leu Asp Arg Ala Lys Asp Ala Leu Glu Gln Glu Trp Arg Asp Ser Gln  
 805 810 815

Lys Arg Ser Ser Thr Val Ser Arg Lys Lys Val Asn Arg Glu Ser Met  
           820                      825                      830  
 Ile Ser Val Met Asp Asp Ile Val Glu Glu Asp Gln Gly Arg Val Asn  
           835                      840                      845  
 Arg Arg Ser Thr Arg Asn Thr Tyr Tyr Glu Arg Glu Arg Asp Tyr Glu  
           850                      855                      860  
 Leu Pro Glu Pro Thr Val Glu Asp Ser Asn Leu Thr Asp Asp Tyr Met  
           865                      870                      875                      880  
 Thr Glu Ile Arg Lys Ser Arg Leu Leu Asn Ser Gln Leu Asn Val Arg  
           885                      890                      895  
 Asp Pro Leu Asn Glu Lys Arg Lys Ser Glu Pro Lys Thr Leu Ile Ser  
           900                      905                      910  
 Asn Val Gln Ile Pro Ser Val Thr Arg Lys Ser Arg Asn Phe Thr Thr  
           915                      920                      925  
 Ser Asn Lys Arg Leu Ser Val Leu Ser Met Tyr Ser Thr Lys Glu Ser  
           930                      935                      940  
 Tyr Arg Asp Leu Asn Ser Ile Ile Asn Ser Pro Asp Glu Asn Pro Glu  
           945                      950                      955                      960  
 Gln His Gln Asn Met Asn Lys Pro Ala Leu Arg Thr Ser Ile Ala Asp  
           965                      970                      975  
 Arg Leu Asp Lys Ala Gly Leu Ala Glu Pro Glu Tyr Glu Thr Glu Thr  
           980                      985                      990  
 Asp Gly Glu Asp Lys Val Ser Val Ile Asp Leu Asp Asp His Leu Ala  
           995                      1000                      1005  
 Asp Arg Arg Thr Ser Tyr Tyr Asp Gly Ser Gly Lys Arg Ala Ser Arg  
           1010                      1015                      1020  
 Ala Ser Thr Thr Lys Arg Tyr Asn Val His Ser Ser Ser Gly Gln Arg  
           1025                      1030                      1035                      1040  
 Pro Lys Ser Lys Val Pro Asp Leu Pro Lys Asn Asp Tyr Asp Asp Thr  
           1045                      1050                      1055  
 Phe Val Ser Asn Ser Asp Glu Val His Lys Arg Gln Tyr Lys Ser Met  
           1060                      1065                      1070  
 Val Ser Asp Glu Ser Ser Ala Ser Asp Asp Val Phe Asp Lys Ile Lys  
           1075                      1080                      1085  
 Leu Pro Asp Gly Lys Ser Thr Lys Ser Ser Ile Asp Glu Leu Ala Asn  
           1090                      1095                      1100  
 Gly Thr Ser Thr Ser Gly His Arg Lys Pro Lys Ile Arg His Ser Gln  
           1105                      1110                      1115                      1120

Pro Gly Pro Glu Met Leu Ile Pro His Leu Asn Gly Gly Ile Glu Ser  
 1125 1130 1135  
 Ser Gln Pro Met Ser Lys Val Arg Gly Asn Asn Ser Ser Gly His Asp  
 1140 1145 1150  
 Asp Ser Val Pro Pro Pro Ala His Lys Val Asn Lys Lys Pro  
 1155 1160 1165  
 Leu Asp Asp Lys Thr Asn Phe Pro Pro Glu Val Asp Pro Lys Arg  
 1170 1175 1180  
 Lys Gly Ser Phe Phe Arg Lys Leu Ser Trp Gly Ser Lys Lys Thr Ile  
 1185 1190 1195 1200  
 Glu Asn Asn Thr Asn Ala Ala Thr Asn Thr Thr Thr Gln Gln Gln Leu  
 1205 1210 1215  
 Pro Ser Pro Ala Glu Ser Lys Glu Glu Lys Pro Lys Ser Ser Phe Phe  
 1220 1225 1230  
 Arg Trp Phe Ser Ser Ser Asn Thr Pro Ser Ala Ala Glu Ile Arg Lys  
 1235 1240 1245  
 Phe Asn Thr Ile Leu Pro Lys His Glu Met Ser Thr Ala Leu Phe Ala  
 1250 1255 1260  
 Leu Leu Asn Ser Trp Ser Asn Phe Gly Leu Lys Asp Leu Arg Asn Asp  
 1265 1270 1275 1280  
 Gln Val Gly Tyr Tyr Ile Thr Gly Ala Ile Ser Lys His Asn Ser Phe  
 1285 1290 1295  
 Asn Leu Lys Ser Cys Lys Phe Arg Ile Lys Ile Asn Gln Arg Asp Phe  
 1300 1305 1310  
 Asn Gln Lys Ser Glu Ile Val Cys Val Arg Val Lys Gly Ser Lys Val  
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 Gly Val Leu Asp Lys  
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 Arg Tyr Gln Lys Ile Glu Asp Ile Ser Glu Gly Ser Tyr Gly Tyr Val  
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Leu Lys Met Met Arg Thr Glu Leu Gln Asn Leu Ser Glu Tyr Thr Leu  
           340                     345                     350  
  
 Asp Asp Glu Tyr Tyr Asn Asn Leu Asp Glu Gly Tyr Glu Glu Thr Met  
           355                     360                     365  
  
 Ile Asp Gly Leu Pro Pro Gln Pro Val Pro Pro Ser Ser Ala Pro Val  
           370                     375                     380  
  
 Ser Leu Pro Thr Pro Ile Ser Ser Ser Asn Lys Gln His Met Pro Glu  
           385                     390                     395                 400  
  
 Phe Lys Lys Asp Phe Asn Phe Asn Asn Val Asn Glu Arg Lys Arg Ser  
           405                     410                     415  
  
 Asp Val Ser Gln Asn Gln Asn Val Ala Ser Gly Phe Phe Lys Lys Pro  
           420                     425                     430  
  
 Ser Thr Gln Gln Gln Lys Phe Phe Asn Gln Gly Tyr Asn Thr Thr Leu  
           435                     440                     445  
  
 Ser Thr His Glu Arg Ala Lys Ser Ala Pro Lys Phe Lys Phe Lys Lys  
           450                     455                     460  
  
 Arg Asn Lys Tyr Gly Arg Thr Asp Asn Gln Phe Ser Lys Pro Val Asn  
           465                     470                     475                 480  
  
 Ile Glu Asp Arg Lys Lys Ser Lys Ile Leu Lys Lys Ser Arg Lys Pro  
           485                     490                     495  
  
 Leu Gly Ile Pro Thr Pro Asn Thr His Met Asn Asn Phe Phe His Asp  
           500                     505                     510  
  
 Tyr Lys Ala Arg Asp Glu Phe Asn Thr Arg Asp Phe Phe Thr Pro Pro  
           515                     520                     525  
  
 Ser Val Gln His Arg Tyr Met Glu Gly Phe Ser Asn Asn Asn Lys  
           530                     535                     540  
  
 Gln Tyr Arg Gln Asn Arg Asn Tyr Asn Asn Asn Asn Asn Ser Asn  
           545                     550                     555                 560  
  
 Asn Asn His Gly Ser Asn Tyr Asn Asn Phe Asn Asn Gly Asn Ser Tyr  
           565                     570                     575  
  
 Ile Lys Gly Trp Asn Lys Asn Phe Asn Lys Tyr Arg Arg Pro Ser Ser  
           580                     585                     590  
  
 Ser Ser Tyr Thr Gly Lys Ser Pro Leu Ser Arg Tyr Asn Met Ser Tyr  
           595                     600                     605  
  
 Asn His Asn Asn Asn Ser Ser Ile Asn Gly Tyr Ala Arg Arg Gly Ser  
           610                     615                     620  
  
 Thr Thr Thr Val Gln His Ser Pro Gly Ala Tyr Ile Pro Pro Asn Ala  
           625                     630                     635                 640

Arg Asn His His Val Ser Pro Thr Asn Gln Phe Leu Arg Val Pro Gln  
 645 650 655  
 Ser Thr Ala Pro Asp Ile Ser Thr Val Leu Gly Gly Lys Pro Ser Tyr  
 660 665 670  
 Gln Glu His Tyr Thr Gln Asp Ser Met Asp Ser Glu Gly Asp His Asp  
 675 680 685  
 Ser Asp Asp Val Leu Phe Thr Leu Glu Glu Gly Asp His Asp Phe Val  
 690 695 700  
 Asn Gly Met Asp Asn Leu Ser Ile Asn Asp His Leu Pro His Thr Thr  
 705 710 715 720  
 Val Gly Ser His Asn Glu Val Phe Val His Ala Ser Thr Asn His Asn  
 725 730 735  
 Asn Asn Gly Asn Asn Asn His Ile Asp Thr Asn Ser Thr Thr Asn Gln  
 740 745 750  
 Tyr His Arg Gln Tyr Ile Pro Pro Pro Leu Thr Thr Ser Leu His Ile  
 755 760 765  
 Asn Asn Asn Asn Asn Glu Ser Asn Glu Leu Pro Asp Leu Leu Lys Ser  
 770 775 780  
 Pro Ala Ser Ser Glu Ala His Leu Asn Leu Ser Ser Gly Pro Ile Asp  
 785 790 795 800  
 Pro Ile Leu Thr Gly Asn Ile Gly Asn Arg Tyr Ser His Ser Ser Asp  
 805 810 815  
 Ser Lys Glu Leu Glu Gln Glu Arg Arg Leu Ser Met Glu Gln Lys Phe  
 820 825 830  
 Lys Asn Gly Val Tyr Val Pro Pro His His Arg Lys Ser Phe Asn Leu  
 835 840 845  
 Gly Thr Gln Val Pro Pro Met Asn Met Lys Thr Ser Asn Glu Ala Thr  
 850 855 860  
 Leu Ser Val Ser His Asn Ser Val Asn Phe Gly Gly Ser Tyr Asn Ser  
 865 870 875 880  
 Arg Arg Ser Ser Ala Asn Glu Ser Asn Pro Leu His Met Asn Lys Ala  
 885 890 895  
 Leu Glu Lys Leu Ser Ser Ser Pro Gly Ala Lys Ser Ser Phe Val Gly  
 900 905 910  
 Phe Pro Lys Pro Leu Leu Pro Arg Asn His Ser Ser Thr Thr Ile Ala  
 915 920 925  
 Leu Gln Asn Glu Asp Val Phe Ala Asp Ser Asn Asn Asp Ala Ile Ile  
 930 935 940

Phe Glu Asp Glu Glu Tyr Glu Gly Glu Ser Asp Lys Met Ala His Gly  
 945 950 955 960

Lys Met Glu Gly Gly Asp Asn Glu Ser Ser Ser Thr Ser Pro Asp Glu  
 965 970 975

Arg Gln Ile Phe Gly Pro Tyr Glu Ile Tyr Ala Gln Thr Phe Ala Gly  
 980 985 990

Ser Thr His Asp Lys Lys Leu Gly Ala Gly Arg Lys Thr Ser Ile Gln  
 995 1000 1005

Asp Glu Met Val Gly Ser Leu Glu Gln Tyr Lys Asn Asn Trp Leu Ile  
 1010 1015 1020

Leu Gln Gln Gln Asp  
 1025

<210> 18

<211> 502

<212> PRT

<213> *Saccharomyces cerevisiae*

<400> 18

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Gly Ser Gly Ala Tyr Gly Leu Val Phe His Val Val Asp Ile Leu Thr  
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Ser Arg Glu Tyr Ala Val Lys Thr Val Phe Lys Ser Ser Ser Met Asp  
 35 40 45

Glu Phe Tyr Asn Lys Asn Gly Leu Asn Asn Asn Ser Gln Val Ala Arg  
 50 55 60

Thr Thr Leu Leu Gln Thr Gln Leu Tyr His Phe Phe Lys Ser Phe Gln  
 65 70 75 80

Lys Lys Leu Phe Leu Pro Ser Val Asp Leu Asp Ser Ile Leu Gln Leu  
 85 90 95

Thr Glu Asn Glu Leu Asn Arg Leu Pro His Tyr Arg Glu Ile Ala Phe  
 100 105 110

Gln Leu Arg Val Gln Ser His Gly Asn Ile Val Lys Ile His Gln Val  
 115 120 125

Leu Glu Ser Ser Ile Ala Thr Phe Ile Val Met Asp Tyr Tyr Asp Arg  
 130 135 140

Asp Leu Phe Thr Ser Ile Val Asp Asp Lys His Phe Val Asn His Gly  
 145 150 155 160

Ile Leu Ile Lys Lys Val Phe Leu Gln Leu Cys Ser Ala Leu Asp His  
 165 170 175

Cys His Arg Leu Gly Ile Tyr His Cys Asp Ile Lys Pro Glu Asn Val  
 180 185 190  
 Leu Leu Asp Arg Asn Asp Asn Ala Tyr Leu Cys Asp Phe Gly Leu Ser  
 195 200 205  
 Thr Lys Ser Lys Tyr Leu Ala Pro Asn Val Cys Val Gly Ser Ser Tyr  
 210 215 220  
 Tyr Met Ala Pro Glu Arg Ile Leu Tyr Cys Leu Asn Thr Thr Thr Asn  
 225 230 235 240  
 Gly Ile His Val Asp Glu Cys Cys Ser Ser Leu Pro Thr Asp Thr Gly  
 245 250 255  
 Asp Ile Trp Ser Leu Gly Ile Ile Leu Ile Asn Leu Thr Cys Ile Arg  
 260 265 270  
 Asn Pro Trp Leu Lys Ala His Gln Lys Glu Asp Asn Thr Phe Gln His  
 275 280 285  
 Phe Ala Asn Asp Asn Asn Val Leu Lys Lys Ile Leu Pro Ile Ser Asp  
 290 295 300  
 Glu Leu Phe Thr Val Leu Thr Lys Ile Leu Gln Leu Asn Pro Tyr Thr  
 305 310 315 320  
 Arg Ile Asp Met Lys Thr Leu Met Ser Glu Val Ser Ser Leu Thr Ser  
 325 330 335  
 Phe Thr Arg Glu Gly Pro Leu Ser Gln Val Pro Ile Leu Ser Ser Glu  
 340 345 350  
 Val Tyr Met Thr His Ile Ile Arg Asn Glu Asn Leu Phe Leu Ser Asp  
 355 360 365  
 Leu Ser His Phe Ser Ala Asp Gln Glu Gln Gln Gln Gln Gln Gln  
 370 375 380  
 Gln Gln Gln Gln Val Gln Glu Gln Gln Glu Gln Lys Gln Glu Gln  
 385 390 395 400  
 Ile Gln Asn Gln Glu Gln Ala Gln Gln Gln Glu Glu Glu Asp Ala  
 405 410 415  
 Glu Pro Glu Ser Asp Ile Pro Ser Thr Tyr Asn Ser Asp Gly Ser Met  
 420 425 430  
 Glu Lys Tyr Glu Tyr Thr Asn Asn His Asn Asn Ser Thr Phe Leu Thr  
 435 440 445  
 Ser Ser Met Asp Ser Thr Pro Tyr Gln Ser Asp Ile Asp Asp Val Ser  
 450 455 460  
 Ala Ser Lys Asp Cys Lys Phe Gln Gln Asp Thr Leu Arg Asn Arg Leu  
 465 470 475 480

Leu Cys Leu Gln Met Asn Phe Ser Thr Leu Thr Asp Gly Pro Asn Glu  
 485                    490                    495

Lys Trp Leu Pro Asp Tyr  
 500

<210> 19  
<211> 461  
<212> PRT  
<213> *Saccharomyces cerevisiae*

<400> 19  
Met Met Met Phe His Asn Cys Arg Ile Asn Asn Tyr Leu Ile Thr Ser  
 1                    5                    10                    15

Gln Ile Gly Glu Gly Ala Tyr Gly Leu Val Tyr Arg Ala Leu Asp Ile  
 20                    25                    30

Arg Thr Asp Arg Gln Tyr Ala Ile Lys Ala Val Val Gln Ser Tyr Gly  
 35                    40                    45

Val Ser Lys Glu Ala Asp Met Gly Asn Asp Lys Ile His Lys Asn Ser  
 50                    55                    60

Val Lys Leu Gln Lys Lys Leu Ala Lys Leu Phe Lys Glu Ser Lys Asn  
 65                    70                    75                    80

Val Val Arg Val Pro Ser Ile Asp Leu Glu Ser Ile Glu Asn Met Ser  
 85                    90                    95

Glu Glu Asp Phe Lys Lys Leu Pro His Tyr Lys Glu Ile Ser Leu His  
 100                    105                    110

Leu Arg Val His His Lys Asn Ile Val Thr Ile His Glu Val Leu  
 115                    120                    125

Gln Ser Ala Val Cys Thr Phe Ile Val Met Asp Tyr Tyr Pro Thr Asp  
 130                    135                    140

Leu Phe Thr Ser Ile Val Asp Asn Arg His Phe Val Thr Asn Gly Leu  
 145                    150                    155                    160

Leu Val Lys Lys Val Phe Leu Gln Ile Cys Ser Ala Leu Asn Tyr Cys  
 165                    170                    175

His Glu His Gly Ile Tyr His Cys Asp Ile Lys Pro Glu Asn Leu Leu  
 180                    185                    190

Leu Asp Thr Glu Asp Asn Val Phe Leu Cys Asp Phe Gly Leu Ser Thr  
 195                    200                    205

Thr Ser Thr Tyr Ile Lys Pro Asn Val Cys Ile Gly Ser Ser Tyr Tyr  
 210                    215                    220

Met Pro Pro Glu Arg Ile Ser Phe Asp Gly Arg Val Ser Ser Ser Lys  
 225                    230                    235                    240

Ser Gly Gly His Lys Leu Gly Lys Val Cys Pro Ser Cys Asn Gly Asp  
                   245                  250                  255  
  
 Leu Trp Ser Leu Gly Ile Ile Leu Ile Asn Leu Thr Cys Ile Arg Asn  
                   260                  265                  270  
  
 Pro Trp Leu Lys Ala Asp Lys Thr Glu Asp Asn Thr Tyr Tyr Tyr Phe  
                   275                  280                  285  
  
 Thr Lys Asp Pro Asn Ile Leu Lys Gln Ile Leu Pro Leu Ser Asp Asp  
                   290                  295                  300  
  
 Phe Tyr Ser Leu Leu Ser Lys Ile Leu Gln Val Asn Pro Lys Asn Arg  
                   305                  310                  315                  320  
  
 Met Ser Leu Gln Glu Leu Met Lys Glu Val Ser Ser Ile Thr Ser Phe  
                   325                  330                  335  
  
 Thr Asn Glu Gly Pro Leu Ser Lys Val Pro Pro Leu Ser Lys Ser Val  
                   340                  345                  350  
  
 Tyr Glu Lys Phe Val Ser Pro Val Asp Asn Thr Asn Glu Asn Leu Ser  
                   355                  360                  365  
  
 Pro Lys Ser Tyr Val Tyr Met His Asp Ser Lys Ala Ala Lys Asn Leu  
                   370                  375                  380  
  
 Ser Tyr Thr Ser Ser Ser Glu Glu Glu Asp Gly Ile Lys Glu Gly Ile  
                   385                  390                  395                  400  
  
 Asp Asp Asp Asn Gly Ser Arg Ser Gly Ser Phe Gly Thr Leu Asp Thr  
                   405                  410                  415  
  
 Asp Thr Gly Leu His Ser Ser Phe Thr Ser Thr Ser Cys Glu Ser Asp  
                   420                  425                  430  
  
 Asn Glu Cys Ser Lys Ile Ser Asn Lys Phe Ser Leu Phe Glu Lys Lys  
                   435                  440                  445  
  
 Phe Asn Glu Leu Arg Met Ser Ser Ser Ser Leu Thr Asn  
                   450                  455                  460  
  
<210> 20  
<211> 470  
<212> PRT  
<213> Schizosaccharomyces pombe  
  
<400> 20  
Met Met Arg Glu Asn Pro Glu Leu Leu Leu Gly Gln Val Leu Gly Asp  
  ' 1              5                  10                  15  
  
Ser Leu Arg Phe Val Ser Ile Ile Gly Ala Gly Ala Tyr Gly Val Val  
  20                  25                  30  
  
Tyr Lys Ala Glu Asp Ile Tyr Asp Gly Thr Leu Tyr Ala Val Lys Ala  
  35                  40                  45

Leu Cys Lys Asp Gly Leu Asn Glu Lys Gln Lys Leu Gln Ala Arg  
       50                  55                  60

Glu Leu Ala Leu His Ala Arg Val Ser Ser His Pro Tyr Ile Ile Thr  
   65                  70                  75                  80

Leu His Arg Val Leu Glu Thr Glu Asp Ala Ile Tyr Val Val Leu Gln  
   85                  90                  95

Tyr Cys Pro Asn Gly Asp Leu Phe Thr Tyr Ile Thr Glu Lys Lys Val  
   100                  105                  110

Tyr Gln Gly Asn Ser His Leu Ile Lys Thr Val Phe Leu Gln Leu Ile  
   115                  120                  125

Ser Ala Val Glu His Cys His Ser Val Gly Ile Tyr His Arg Asp Leu  
   130                  135                  140

Lys Pro Glu Asn Ile Met Val Gly Asn Asp Val Asn Thr Val Tyr Leu  
   145                  150                  155                  160

Ala Asp Phe Gly Leu Ala Thr Thr Glu Pro Tyr Ser Ser Asp Phe Gly  
   165                  170                  175

Cys Gly Ser Leu Phe Tyr Met Ser Pro Glu Cys Gln Arg Glu Val Lys  
   180                  185                  190

Lys Leu Ser Ser Leu Ser Asp Met Leu Pro Val Thr Pro Glu Pro Ile  
   195                  200                  205

Glu Ser Gln Ser Ser Ser Phe Ala Thr Ala Pro Asn Asp Val Trp Ala  
   210                  215                  220

Leu Gly Ile Ile Leu Ile Asn Leu Cys Cys Lys Arg Asn Pro Trp Lys  
   225                  230                  235                  240

Arg Ala Cys Ser Gln Thr Asp Gly Thr Tyr Arg Ser Tyr Val His Asn  
   245                  250                  255

Pro Ser Thr Leu Leu Ser Ile Leu Pro Ile Ser Arg Glu Leu Asn Ser  
   260                  265                  270

Leu Leu Asn Arg Ile Phe Asp Arg Asn Pro Lys Thr Arg Ile Thr Leu  
   275                  280                  285

Pro Glu Leu Ser Thr Leu Val Ser Asn Cys Lys Asn Leu Thr Arg Arg  
   290                  295                  300

Leu Arg Pro Ala Pro Leu Val Ser Ser Arg Tyr Leu Ala Tyr Gln Gln  
   305                  310                  315                  320

Gln Gln Gln Gln Gln Met Asn Leu Gln Gln Gly Ile Gln Gly Tyr  
   325                  330                  335

Pro His Gln Gly Tyr Met Pro Thr Gln Asn Ile Gly Phe Pro Trp Pro  
   340                  345                  350

Pro Thr Pro Gln Phe Val Ser Asn Trp Asn His Cys Ala Thr Pro Thr  
 355 360 365  
 Ile Pro Val Ser Leu Gln Val Leu Thr Pro Asn Ser Ser Leu Lys Val  
 370 375 380  
 Asp Pro Thr Thr Pro Leu Thr Ala Pro Ile His Ala Thr Glu Ser Phe  
 385 390 395 400  
 Trp Pro Ser Ala Ala Ala Ala Ala Val His Asn Asn Ala Asn  
 405 410 415  
 Ser Tyr Met Pro Ile Thr Pro Thr Pro Tyr Pro Asn Asn Ala Lys Ile  
 420 425 430  
 Phe Gly Tyr Pro Asn Gln Pro Pro Leu Thr Pro Ile Pro Phe Thr Gly  
 435 440 445  
 Phe Val Leu His Pro Ala Pro Val Gly Arg Ala Ala Asp Ala Val Asp  
 450 455 460  
 Pro Ser Arg Lys Ser Leu  
 465 470

<210> 21  
 <211> 474  
 <212> PRT  
 <213> Schizosaccharomyces pombe

<400> 21  
 Met Lys Leu Leu Gln Lys Lys Gly Tyr Lys Val Glu Arg Pro Leu Asn  
 1 5 10 15

Lys Gly Ser Tyr Gly Thr Val Val Leu Ala His Arg Leu Phe Arg Thr  
 20 25 30

Pro Arg Cys Lys Asp Leu Lys Tyr Ala Ile Lys Cys Ile Lys Lys Pro  
 35 40 45

Ala Tyr Thr Phe Leu Gln Glu Val Asn Ile Leu Arg Gln Leu Ser Arg  
 50 55 60

Ser Arg His Arg Asn Ile Ile His Phe Val Glu Ser Phe Glu Asp Asn  
 65 70 75 80

Val Tyr Tyr Tyr Val Val Leu Glu Tyr Cys Pro Leu Gly Asp Leu Tyr  
 85 90 95

Glu Cys Ile Leu Asn Asn Asp Phe Pro Asn Ala Lys Asn Gln Pro Glu  
 100 105 110

Met Ile Lys Asn Ile Phe Leu Gln Ile Ile Asp Gly Val Ala His Leu  
 115 120 125

His Ser His Gly Ile Tyr His Arg Asp Leu Lys Pro Glu Asn Phe Leu  
 130 135 140

Leu Ser Leu Ser Glu Asp Gly Ser Glu Leu Val Val Lys Ile Ser Asp  
 145 150 155 160  
 Phe Gly Leu Ala Cys Arg Asp Lys Ile Ser Tyr Asp Phe Gly Thr Gly  
 165 170 175  
 Ser Asp Arg Tyr Met Ala Pro Glu Gln Phe Glu Glu Val Asp Gly Ala  
 180 185 190  
 Gly Tyr Ser Pro Arg Ala Ala Asp Ile Trp Ala Leu Gly Ile Cys Leu  
 195 200 205  
 Leu Asn Leu Ile Phe Ala Arg Asn Pro Phe Thr Tyr Pro His Glu Lys  
 210 215 220  
 Asp Pro Ile Phe Ala Asp Tyr Met Leu Asp Ala Met Thr Leu Phe Asp  
 225 230 235 240  
 Val Phe Pro Thr Leu Ser Gln Asp Thr Tyr Asn Val Leu Arg Ala Cys  
 245 250 255  
 Leu Cys Val Ser Pro Glu Lys Arg Ser Leu Ala Lys Thr Arg Glu Ala  
 260 265 270  
 Val Leu Ala Val Thr Lys Trp Thr Asp Asp Glu Glu Leu Glu Ser  
 275 280 285  
 Phe Val Asn Glu Glu Glu Phe Arg Ala Ser Asp Phe Met Pro Ala  
 290 295 300  
 Glu Asp Asn Val Arg Cys Thr Gln Ser Asp Arg Glu Pro Leu Arg Thr  
 305 310 315 320  
 Pro Ser Val Leu Thr Pro Ala Asn Thr Ile Gln Arg Gly Leu Leu Pro  
 325 330 335  
 Ser Lys Leu Pro Ala Leu Ser Asp Val Asp Glu Asn Ile Ser Thr Ser  
 340 345 350  
 Ser Ser Pro Arg Ser Pro Ala Ser Leu Ala Pro Val Asn Asn Ser Glu  
 355 360 365  
 Arg Ser Tyr Asp Ser Gly Leu Gly Glu Ser Leu Asn Asn Met His Ile  
 370 375 380  
 Gly Lys Ser Ile Ala Thr Ala Val Pro Val Asn Thr Lys Arg Ser Pro  
 385 390 395 400  
 Tyr Ser Cys Ser Ala Pro Ala Ile Val Phe Pro Asn Ser Ile Lys Gly  
 405 410 415  
 Asn Lys Asp His Leu Lys Phe Gly Arg Ser Trp Cys Asp Met Asp Glu  
 420 425 430  
 Glu Asp Glu Glu Asp Ile Val Ser Phe Gly Ser Asn Asp Asp Phe Gly  
 435 440 445

Ala Ser Asp Glu Leu Ser Ser Lys His Ile Gly Leu Ala Asp Asp Trp  
 450 455 460

Asn Val Leu Ser Gln Trp Asn Asp Asn Ser  
 465 470

<210> 22  
 <211> 413  
 <212> PRT  
 <213> Pichia jadinii

<400> 22  
 Met Thr His Thr Asp Ile Thr Gly Ser Leu Ile Asn Glu Tyr Arg Ile  
 1 5 10 15

Val Lys Leu Ile Gly Ser Gly Ala Tyr Gly Leu Val Tyr Gln Ala Gln  
 20 25 30

Asn Thr Val Thr Gly Gln Gln Val Ala Ile Lys Cys Ile Ser Lys Lys  
 35 40 45

Ser Asn Pro Ser Val Lys Lys Gln Ser Asp Tyr Leu Thr Thr Leu Leu  
 50 55 60

Ala Glu His Leu Leu Glu Arg Asp Phe Ser Leu Gln Gly Leu Arg Glu  
 65 70 75 80

Met Ser Leu Lys Arg Leu Ser Met Ala Asp Asn Ile Pro Cys Pro Phe  
 85 90 95

Val Arg Glu Ile Ser Ile His Leu Gln Val His Gln His Pro Asn Val  
 100 105 110

Ile Ser Ile His Lys Ile Leu Asp Ser Gln Val Ala Val Phe Val Val  
 115 120 125

Met Asp Tyr Tyr Pro Glu Gly Asp Leu Phe Val Asn Ile Val Asp Arg  
 130 135 140

Gln Val Tyr Ala Arg Ser Ser Gly Leu Ile Lys Asp Val Phe Ile Gln  
 145 150 155 160

Leu Ile Asp Val Ile Ser Tyr Cys His Ser Lys Gly Ile Tyr His Cys  
 165 170 175

Asp Ile Lys Pro Glu Asn Ile Met Cys Ala Asn Lys Gly Ser Lys Val  
 180 185 190

Val Ile Gly Asp Phe Gly Leu Ala Val Lys Ser Lys Tyr Ile Gln Ser  
 195 200 205

Lys Thr Cys Ile Gly Ser Ser Tyr Tyr Met Ala Pro Glu Arg Leu Cys  
 210 215 220

Thr Met Asn His Ser Leu Thr Arg Leu Glu Tyr Pro Ala Cys Lys Gly  
 225 230 235 240

Asp Ile Trp Ser Leu Gly Val Ile Leu Ile Asn Phe Cys Cys Thr Arg  
                   245                  250                  255  
 Asn Pro Trp Met Lys Ala Cys Glu Lys Asp Ala Thr Tyr Ser Ala Phe  
                   260                  265                  270  
 Lys Lys Asp Pro Lys Ile Leu Met Glu Ile Leu Asp Ile Ser Glu Glu  
                   275                  280                  285  
 Leu Trp Asn Ile Leu Cys Asp Cys Phe Arg Glu Glu Pro Glu Glu Arg  
                   290                  295                  300  
 Ile Ser Leu Phe Glu Leu Arg Asp Arg Val Leu Lys Cys Arg Ser Phe  
                   305                  310                  315                  320  
 Thr Val Ala Gly Pro Leu Ser Arg Cys Asp Ser Tyr Glu Gln Asp Met  
                   325                  330                  335  
 Asp Asp Ala Leu Glu Cys Ala Val Pro Ala Asn Glu Ser Ser Val Gly  
                   340                  345                  350  
 Ser Asn Gly Ser Leu Asp Leu Pro Met Asp His Ile Ile Glu Tyr Ala  
                   355                  360                  365  
 Gln Tyr Leu Gln Thr Leu Ser Ser Val Lys Asn Thr Ala Ala Gly Asn  
                   370                  375                  380  
 Tyr Thr Gln Asn Gln Phe Val Leu Asp Asn Asn Ile Met Asp Asn Val  
                   385                  390                  395                  400  
 Ser Ile Met Ser Asn Lys Ser Phe Asn Met Asn Phe Ala  
                   405                  410

<210> 23  
 <211> 506  
 <212> PRT  
 <213> Nectria haematococca

<400> 23  
 Met Gln His His Ala Ile Phe Gly Tyr Gln Thr Pro Pro Ala Ser Pro  
     1                  5                  10                  15  
 Gly Phe Asp Asn Pro Lys Cys Thr Ile Gln Gln Pro Phe Ala Val Pro  
     20                  25                  30  
 Arg His Tyr Pro Thr Arg Pro Leu Ala Pro Glu Glu Arg Leu Gly Arg  
     35                  40                  45  
 Val Leu Glu Gly Thr Leu Gln Leu Thr Glu Ile Leu Gly Thr Gly Ala  
     50                  55                  60  
 Tyr Gly Val Val Tyr Leu Ala Val Asp Leu Lys Thr Gly Gly Lys Tyr  
     65                  70                  75                  80  
 Ala Val Lys Cys Leu Ser Lys Phe Asn Ala Asp Gly Thr Gln Leu Glu  
     85                  90                  95

Pro Arg Gln Phe Ala Tyr Gln Gln Arg Glu Ile Arg Leu His Trp Lys  
 100 105 110  
 Ala Ser Asn His Ala Asn Val Val Gln Met Leu Lys Ile Val Asn Asp  
 115 120 125  
 Pro Asp Cys Ile Tyr Val Ile Leu Glu Tyr Cys Pro Glu Gly Asp Leu  
 130 135 140  
 Phe Leu Asn Ile Thr Glu Arg Gly Gln Tyr Val Gly Lys Asp Glu Leu  
 145 150 155 160  
 Ser Arg Asn Ile Phe Leu Gln Ile Leu Asp Ala Val Glu His Cys His  
 165 170 175  
 Asn Leu Gly Ile Tyr His Arg Asp Leu Lys Pro Glu Asn Ile Leu Val  
 180 185 190  
 Thr Asp Arg Gly Asp Thr Val Lys Leu Ala Asp Phe Gly Leu Ala Thr  
 195 200 205  
 Ser Asp Asp Arg Ser Glu Asp Tyr Gly Cys Gly Ser Thr Phe Tyr Met  
 210 215 220  
 Ser Pro Glu Cys Leu Asp Pro Ser Ala Arg Lys Pro Tyr Tyr Met Cys  
 225 230 235 240  
 Ala Pro Asn Asp Val Trp Ser Leu Gly Val Ile Leu Val Asn Leu Thr  
 245 250 255  
 Cys Gly Arg Asn Pro Trp Lys Gln Ala Ser Phe Gln Asp Ser Thr Tyr  
 260 265 270  
 Arg Ala Tyr Ala Gly Ser Lys Asp Phe Leu Lys Thr Ile Leu Pro Leu  
 275 280 285  
 Ser Asp Glu Leu Asn Glu Ile Leu Gly Arg Ile Phe Glu Pro Asn Pro  
 290 295 300  
 Glu Gln Arg Ile Thr Leu Asn Glu Leu Arg Thr Arg Ile Met Ala Cys  
 305 310 315 320  
 Ser Arg Phe Thr Met Pro Ala Val Ser Pro Pro Thr Pro Pro Ala Ser  
 325 330 335  
 Pro Asp His Thr Thr Gln Tyr Val Ser Thr Glu Asp Ala Ile Ile Asp  
 340 345 350  
 Asp Tyr Asp Tyr Asp Ser Pro Leu Ser Pro Ala Ser Ser Ser Asp Asp  
 355 360 365  
 Glu Gly Ser Leu Thr Ser Ser Gly Ser Thr Ile Asp Asp Leu Asp Asp  
 370 375 380  
 Asp Phe Asp Gln Glu Arg Gln Met Pro Gln Thr Pro Pro Glu Tyr Ala  
 385 390 395 400

Pro His Ala Phe Asp Pro Glu Glu Pro Lys Glu His Gln Leu Ile Tyr  
                   405                  410                  415  
 His Ser Gln Glu Phe Val Pro Gln Lys Tyr Ser Gly Pro Val Pro Val  
                   420                  425                  430  
 Pro Val Gln Val Pro Val Gly Val Pro Pro Gln Pro Met Leu Cys Gln  
                   435                  440                  445  
 Pro Val Pro Val Pro Ile Gln Ala Pro Val Pro Ile Gln Ala Pro Cys  
                   450                  455                  460  
 Gln Gln His Lys Ser Tyr Phe Pro Ile Trp Asp Met Val Lys Tyr Val  
                   465                  470                  475                  480  
 Gln His Val Pro Ile Leu Gln His His Ile Pro Phe His Gln Gln Val  
                   485                  490                  495  
 Pro Phe Met Pro Thr Phe Gln Gly Cys Tyr  
                   500                  505

<210> 24  
 <211> 315  
 <212> PRT  
 <213> Candida albicans

<400> 24  
 Asp Leu Cys Tyr Ala Asn Ser Ile Ile Asp Tyr Asn Glu Leu His Leu  
       1                  5                  10                  15  
 Val Leu Ile Asp Phe Gly Leu Ala Met Asp Ser Ala Thr Ile Cys Cys  
       20                  25                  30  
 Asn Ser Cys Arg Gly Ser Ser Phe Tyr Met Ala Pro Glu Arg Thr Thr  
       35                  40                  45  
 Asn Tyr Asn Thr His Arg Leu Ile Asn Gln Leu Ile Asp Met Asn Gln  
       50                  55                  60  
 Tyr Glu Ser Ile Glu Ile Asn Gly Thr Thr Val Thr Lys Ser Asn Cys  
       65                  70                  75                  80  
 Lys Tyr Leu Pro Thr Leu Ala Gly Asp Ile Trp Ser Leu Gly Val Leu  
       85                  90                  95  
 Phe Ile Asn Ile Thr Cys Ser Arg Asn Pro Trp Pro Ile Ala Ser Phe  
       100                  105                  110  
 Asp Asn Asn Gln Asn Asn Glu Val Phe Lys Asn Tyr Met Leu Asn Asn  
       115                  120                  125  
 Asn Lys Ala Val Leu Ser Lys Ile Leu Pro Ile Ser Ser Gln Phe Asn  
       130                  135                  140  
 Arg Leu Leu Asp Arg Ile Phe Lys Leu Asn Pro Asn Asp Arg Ile Asp  
       145                  150                  155                  160

Leu Pro Thr Leu Tyr Lys Glu Val Ile Arg Cys Asp Phe Phe Lys Asp  
                   165                 170                 175  
  
 Asp His Tyr Tyr Tyr Ala Gln His Gln His His Asn His Asn Gln  
                   180                 185                 190  
  
 Ile Asn Asn Ala Tyr Asn His Tyr Gln Lys Gln Pro Asn Gln Ala Arg  
                   195                 200                 205  
  
 Pro Thr Ala Asn Gln Leu Tyr Thr Pro Pro Glu Thr Thr Thr Tyr  
                   210                 215                 220  
  
 Asn Ser Tyr Ala Ser Asp Met Glu Glu Asp Glu Ile Ser Asp Asp Glu  
                   225                 230                 235                 240  
  
 Phe Tyr Ser Asp Glu Glu Asp Glu Asp Ile Glu Asp Tyr Glu Glu Glu  
                   245                 250                 255  
  
 Glu Glu Glu Tyr Phe Gly Asn Glu Gln Gln Gln Gln Gln Val Thr  
                   260                 265                 270  
  
 Thr Val Asn Gly Asn Phe Gly Gln Val Lys Gly Thr Cys Tyr Tyr Asp  
                   275                 280                 285  
  
 Thr Lys Thr Lys Thr Thr Tyr Ile Lys Pro Pro Ala Ala Tyr Thr  
                   290                 295                 300  
  
 Leu Glu Thr Pro Ser Gln Ser Val Glu Tyr Cys  
                   305                 310                 315

<210> 25  
 <211> 640  
 <212> PRT  
 <213> *Saccharomyces cerevisiae*

<400> 25  
 Met Ser Pro Arg Gln Leu Ile Pro Thr Leu Ile Pro Glu Trp Ala Pro  
     1              5                 10                 15

Leu Ser Gln Gln Ser Cys Ile Arg Glu Asp Glu Leu Asp Ser Pro Pro  
     20                 25                         30

Ile Thr Pro Thr Ser Gln Thr Ser Ser Phe Gly Ser Ser Phe Ser Gln  
     35                 40                         45

Gln Lys Pro Thr Tyr Ser Thr Ile Ile Gly Glu Asn Ile His Thr Ile  
     50                 55                         60

Leu Asp Glu Ile Arg Pro Tyr Val Lys Lys Ile Thr Val Ser Asp Gln  
     65                 70                         75                 80

Asp Lys Lys Thr Ile Asn Gln Tyr Thr Leu Gly Val Ser Ala Gly Ser  
     85                 90                         95

Gly Gln Phe Gly Tyr Val Arg Lys Ala Tyr Ser Ser Thr Leu Gly Lys  
     100                 105                         110

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Val | Ala | Val | Lys | Ile | Ile | Pro | Lys | Pro | Trp | Asn | Ala | Gln | Gln |     |
| 115 |     |     |     |     |     |     | 120 |     |     |     | 125 |     |     |     |     |
| Tyr | Ser | Val | Asn | Gln | Val | Met | Arg | Gln | Ile | Gln | Leu | Trp | Lys | Ser | Lys |
| 130 |     |     |     |     |     | 135 |     |     |     |     | 140 |     |     |     |     |
| Gly | Lys | Ile | Thr | Thr | Asn | Met | Ser | Gly | Asn | Glu | Ala | Met | Arg | Leu | Met |
| 145 |     |     |     |     | 150 |     |     |     |     | 155 |     |     |     | 160 |     |
| Asn | Ile | Glu | Lys | Cys | Arg | Trp | Glu | Ile | Phe | Ala | Ala | Ser | Arg | Leu | Arg |
|     |     | 165 |     |     |     |     |     | 170 |     |     |     | 175 |     |     |     |
| Asn | Asn | Val | His | Ile | Val | Arg | Leu | Ile | Glu | Cys | Leu | Asp | Ser | Pro | Phe |
|     | 180 |     |     |     |     |     | 185 |     |     |     |     | 190 |     |     |     |
| Ser | Glu | Ser | Ile | Trp | Ile | Val | Thr | Asn | Trp | Cys | Ser | Leu | Gly | Glu | Leu |
|     | 195 |     |     |     |     | 200 |     |     |     |     | 205 |     |     |     |     |
| Gln | Trp | Lys | Arg | Asp | Asp | Asp | Glu | Asp | Ile | Leu | Pro | Gln | Trp | Lys | Lys |
|     | 210 |     |     | 215 |     |     |     |     |     |     | 220 |     |     |     |     |
| Ile | Val | Ile | Ser | Asn | Cys | Ser | Val | Ser | Thr | Phe | Ala | Lys | Lys | Ile | Leu |
| 225 |     |     |     |     | 230 |     |     |     | 235 |     |     |     | 240 |     |     |
| Glu | Asp | Met | Thr | Lys | Gly | Leu | Glu | Tyr | Leu | His | Ser | Gln | Gly | Cys | Ile |
|     |     | 245 |     |     |     |     | 250 |     |     |     |     | 255 |     |     |     |
| His | Arg | Asp | Ile | Lys | Pro | Ser | Asn | Ile | Leu | Leu | Asp | Glu | Glu | Glu | Lys |
|     |     | 260 |     |     |     |     | 265 |     |     |     |     | 270 |     |     |     |
| Val | Ala | Lys | Leu | Ser | Asp | Phe | Gly | Ser | Cys | Ile | Phe | Thr | Pro | Gln | Ser |
|     |     | 275 |     |     |     | 280 |     |     |     |     | 285 |     |     |     |     |
| Leu | Pro | Phe | Ser | Asp | Ala | Asn | Phe | Glu | Asp | Cys | Phe | Gln | Arg | Glu | Leu |
|     |     | 290 |     |     |     | 295 |     |     |     |     | 300 |     |     |     |     |
| Asn | Lys | Ile | Val | Gly | Thr | Pro | Ala | Phe | Ile | Ala | Pro | Glu | Leu | Cys | His |
|     | 305 |     |     |     | 310 |     |     |     |     | 315 |     |     |     | 320 |     |
| Leu | Gly | Asn | Ser | Lys | Arg | Asp | Phe | Val | Thr | Asp | Gly | Phe | Lys | Leu | Asp |
|     |     | 325 |     |     |     |     | 330 |     |     |     |     | 335 |     |     |     |
| Ile | Trp | Ser | Leu | Gly | Val | Thr | Leu | Tyr | Cys | Leu | Leu | Tyr | Asn | Glu | Leu |
|     |     | 340 |     |     |     |     | 345 |     |     |     |     | 350 |     |     |     |
| Pro | Phe | Phe | Gly | Glu | Asn | Glu | Phe | Glu | Thr | Tyr | His | Lys | Ile | Ile | Glu |
|     |     | 355 |     |     |     | 360 |     |     |     |     | 365 |     |     |     |     |
| Val | Ser | Leu | Ser | Ser | Lys | Ile | Asn | Gly | Asn | Thr | Leu | Asn | Asp | Leu | Val |
|     |     | 370 |     |     |     | 375 |     |     |     |     | 380 |     |     |     |     |
| Ile | Lys | Arg | Leu | Leu | Glu | Lys | Asp | Val | Thr | Leu | Arg | Ile | Ser | Ile | Gln |
|     | 385 |     |     |     | 390 |     |     |     |     | 395 |     |     |     | 400 |     |
| Asp | Leu | Val | Lys | Val | Leu | Ser | Arg | Asp | Gln | Pro | Ile | Asp | Ser | Arg | Asn |
|     |     |     | 405 |     |     |     |     |     | 410 |     |     |     | 415 |     |     |

His Ser Gln Ile Ser Ser Ser Val Asn Pro Val Arg Asn Glu Gly  
   420                          425                          430  
  
 Pro Val Arg Arg Phe Phe Gly Arg Leu Leu Thr Lys Lys Gly Lys Lys  
   435                          440                          445  
  
 Lys Thr Ser Gly Lys Gly Lys Asp Lys Val Leu Val Ser Ala Thr Ser  
   450                          455                          460  
  
 Lys Val Thr Pro Ser Ile His Ile Asp Glu Glu Pro Asp Lys Glu Cys  
   465                          470                          475                          480  
  
 Phe Ser Thr Thr Val Leu Arg Ser Ser Pro Asp Ser Ser Asp Tyr Cys  
   485                          490                          495  
  
 Ser Ser Leu Gly Glu Glu Ala Ile Gln Val Thr Asp Phe Leu Asp Thr  
   500                          505                          510  
  
 Phe Cys Arg Ser Asn Glu Ser Leu Pro Asn Leu Thr Val Asn Asn Asp  
   515                          520                          525  
  
 Lys Gln Asn Ser Asp Met Lys Thr Asp Arg Ser Glu Ser Ser Ser His  
   530                          535                          540  
  
 Ser Ser Leu Lys Ile Pro Thr Pro Ile Lys Ala Met Ile Arg Leu Lys  
   545                          550                          555                          560  
  
 Ser Ser Pro Lys Glu Asn Gly Asn Arg Thr His Ile Asn Cys Ser Gln  
   565                          570                          575  
  
 Asp Lys Pro Ser Ser Pro Leu Met Asp Arg Thr Val Gly Lys Arg Thr  
   580                          585                          590  
  
 Val Asn Asn Ser Gly Ala Arg Lys Leu Ala His Ser Ser Asn Ile Leu  
   595                          600                          605  
  
 Asn Phe Lys Ala Tyr Ile Asn Ser Glu Asp Ser Asp Ile Arg Glu Thr  
   610                          615                          620  
  
 Val Glu Asp Val Lys Thr Tyr Leu Asn Phe Ala Asp Asn Gly Gln Ile  
   625                          630                          635                          640  
  
 <210> 26  
 <211> 1142  
 <212> PRT  
 <213> *Saccharomyces cerevisiae*  
  
 <400> 26  
 Met Asp Arg Ser Asp Lys Lys Val Asn Val Glu Glu Val Asn Val Pro  
   1                          5                                  10                          15  
  
 Ser Asn Leu Gln Ile Glu Leu Glu Lys Ser Gly Thr Ser Ser Ser Val  
   20                          25                                  30  
  
 Ser Leu Arg Ser Pro Thr Lys Ser Ser Ala Thr Asn Leu Ala Gly Met  
   35                          40                                  45

Ala Glu Gly Ala Arg Asp Asn Ala Ser Ile Ala Ser Ser Ser Val Asp  
       50                  55                  60

Ser Leu Asn Met Leu Leu Glu Arg Gln Arg Val Arg Gln Leu Asn His  
   65                  70                  75                  80

Pro Gln His Gln Gln His Ile Ser Ser Ser Leu Ala Lys Thr Pro Thr  
   85                  90                  95

Thr Thr Ser Ser Phe Cys Ser Ser Gly Ser Ser Lys Asn Lys Val Lys  
   100                  105                  110

Glu Thr Asn Arg Ile Ser Leu Thr Tyr Asp Pro Val Ser Lys Arg Lys  
   115                  120                  125

Val Leu Asn Thr Tyr Glu Ile Ile Lys Glu Leu Gly His Gly Gln His  
   130                  135                  140

Gly Lys Val Lys Leu Ala Arg Asp Ile Leu Ser Lys Gln Leu Val Ala  
   145                  150                  155                  160

Ile Lys Ile Val Asp Arg His Glu Lys Gln Arg Lys Phe Phe Thr  
   165                  170                  175

Phe Ile Lys Ser Ser Lys Ile Ser Glu Asn Asp Lys Ile Lys Arg Glu  
   180                  185                  190

Ile Ala Ile Met Lys Lys Cys His His Lys His Val Val Gln Leu Ile  
   195                  200                  205

Glu Val Leu Asp Asp Leu Lys Ser Arg Lys Ile Tyr Leu Val Leu Glu  
   210                  215                  220

Tyr Cys Ser Arg Gly Glu Val Lys Trp Cys Pro Pro Asp Cys Met Glu  
   225                  230                  235                  240

Ser Asp Ala Lys Gly Pro Ser Leu Leu Ser Phe Gln Glu Thr Arg Glu  
   245                  250                  255

Ile Leu Arg Gly Val Val Leu Gly Leu Glu Tyr Leu His Tyr Gln Gly  
   260                  265                  270

Ile Ile His Arg Asp Ile Lys Pro Ala Asn Leu Leu Ile Ser Gly Asp  
   275                  280                  285

Gly Thr Val Lys Ile Ser Asp Phe Gly Val Ser Leu Ala Ala Ser Ser  
   290                  295                  300

Thr Asn Ser Ser Asp Ser Ser Glu Ser Leu Asp Glu Leu Glu Leu Ala  
   305                  310                  315                  320

Lys Thr Val Gly Thr Pro Ala Phe Phe Ala Pro Glu Met Cys Leu Gly  
   325                  330                  335

Glu Asp Ala Phe Thr Arg Tyr Asn Leu Thr Lys Glu Asn Leu Phe Arg  
   340                  345                  350

Gly Ser Cys Ile Ser Phe Met Ile Asp Ile Trp Ala Val Gly Val Thr  
 355 360 365  
 Leu Tyr Cys Leu Leu Phe Gly Met Leu Pro Phe Phe Ser Asp Phe Glu  
 370 375 380  
 Leu Lys Leu Phe Glu Lys Ile Val Asn Asp Pro Leu Lys Phe Pro Thr  
 385 390 395 400  
 Phe Lys Glu Ile Gln Ser Asn Lys Val Ser Lys Val Ser Cys Glu Glu  
 405 410 415  
 Glu Tyr Glu Met Ala Lys Asp Leu Leu Leu Lys Leu Leu Glu Lys Asn  
 420 425 430  
 Pro Gln Lys Arg Met Thr Ile Pro Ala Ile Lys Lys His Pro Phe Val  
 435 440 445  
 Ser Trp Asp Phe Asp His Val Pro Glu Asn Asp Glu Lys Leu Leu Ser  
 450 455 460  
 Ser Val Leu Glu Gln Lys Leu Arg Phe Gln Cys Asn Gln Thr Asp Gln  
 465 470 475 480  
 Phe Glu Pro Ile Ser Ile Ser Lys His Glu Leu Lys Asn Ala Val Ser  
 485 490 495  
 Gly Val Gly Lys Lys Ile Lys Glu Ser Val Leu Lys Ser Ile Pro Leu  
 500 505 510  
 Lys Asp Pro Ser Asp Leu Ser Asn Lys Asn Tyr Leu His Pro Thr Glu  
 515 520 525  
 Thr Thr Arg Gly Arg Gly Asp Ala Asn Val Ile Val Ser Glu Gly Ser  
 530 535 540  
 Val Leu Ser Asn Ile Lys Glu Leu Ser Ala Asn Asp Gly Cys Leu Asn  
 545 550 555 560  
 Thr Asp Ser Asp Thr Asn Ile Asn Ile Asn Asp Asp Asp His Tyr Ser  
 565 570 575  
 Gly Asp Asp Asn Asp Gly His Leu Thr Lys Arg Glu Leu Glu Arg Glu  
 580 585 590  
 Leu Asn Lys Phe Asp Asp Lys His Glu Ala Gly Asn Met Val Asn Leu  
 595 600 605  
 Pro Ile Asn Ser Ser Phe Ala Ser Leu Asp Ser Phe Tyr Ile Asp Asn  
 610 615 620  
 Phe Ala Met Ala Arg Met Gly Met Ser Ser Pro Glu Ala Gly Asp Ser  
 625 630 635 640  
 Val Ser Ser Val Pro Asn Leu Pro Ser Ala Pro Ser Ser Thr Arg Leu  
 645 650 655

Gly Arg Ser Pro Val Phe Ser Gly Val Thr Asn Gln Pro Ser Pro Ile  
 660 665 670  
 Arg Pro Val Leu Pro Gln Gln Lys Ser Ser Phe Cys Ala Thr Gly Arg  
 675 680 685  
 Tyr Asp Lys Ser His Asn Ser Leu Leu Arg Asn Ser Ser Ser His Leu  
 690 695 700  
 Thr Ser Tyr Asn Ser Gly Arg Pro Ser Ser Arg Thr Gly Arg Met Asn  
 705 710 715 720  
 Ser Arg Asn Gln Asn Leu Pro Lys Ile Pro Asn Ser Leu Ser Lys Ile  
 725 730 735  
 Ser Thr Thr Lys Leu Thr Glu Leu Arg Val Pro Lys Asp Ser Glu Ile  
 740 745 750  
 Pro Ser Pro Ala Lys Asn Pro Asn Ala Asp Arg Leu Arg Arg Phe Pro  
 755 760 765  
 Val Lys Lys Asn Thr Lys Thr Pro Ala Ile Lys Asp Pro Pro Arg Ile  
 770 775 780  
 Asn Ile Asn Ser Ser Asp Lys Ser Gly Ser Lys Asn Ser Pro Ile Lys  
 785 790 795 800  
 Ser Leu Tyr Gln Arg Met Lys Gln Ser Lys Asp Asn Ser Lys Thr Phe  
 805 810 815  
 Glu Val Arg Arg Gly Asn Phe Phe Ser His Phe Asn Gly Asp Asp Asp  
 820 825 830  
 Asp Ser Ser Ser Gln Ser Ser Val Thr Ser Ser Gly Ser Glu Ser Asp  
 835 840 845  
 Ser Glu Leu Ser Ser Thr Ser Ser Ser Cys Thr Ser Gly Thr Gln Ser  
 850 855 860  
 Arg Asn Ser Ser Asn Asn Asn Ala Tyr Ser Glu Thr Glu Ser Leu Pro  
 865 870 875 880  
 Phe Glu Phe Gly Val Asp Ser Glu Asp Gly Ser Gly Val Leu Leu Arg  
 885 890 895  
 Asp Leu Pro Asn Glu Asp Gln Ile Arg Pro Phe Leu Asp Ile Gln Pro  
 900 905 910  
 Cys Arg Arg Met Lys Val Lys Ser Ser Leu Asn Leu Glu Pro Pro Ser  
 915 920 925  
 Val Ser Ser Ser Ser Ser Ser Asp Glu Asp Glu Leu Ile Leu  
 930 935 940  
 Asn Val Gly Thr Ala Gly His Arg Arg Arg His Asn Ser Ser Lys Leu  
 945 950 955 960

Ser Glu Leu Ser Asn Ser Pro Gln Lys Gly Ser Asn Asn Phe Met Tyr  
                   965                  970                  975  
  
 Ser Asn Gly Ser Val His Asp Ser Glu Thr Thr Ile Thr Pro Gln Asn  
                   980                  985                  990  
  
 Met Asp Asp Leu Thr Leu His Gln Ala Leu Ser Arg Ser Gln Pro Ile  
                   995                  1000                  1005  
  
 Ser Lys Pro Gly Pro Leu Val Leu Pro Lys Arg Leu Asp Gln Lys Lys  
                   1010                  1015                  1020  
  
 Ala Thr Thr Glu Thr Ser Asn Leu Thr Asp Ile Val Glu Phe Asn Gly  
                   1025                  1030                  1035                  1040  
  
 Asn Asn Asp His Arg Lys Asp Lys Asn Phe Asp Lys Val Leu Tyr Ser  
                   1045                  1050                  1055  
  
 Arg Asp Leu Leu Lys Asp Ala Leu Ser Ser Thr Asn Ala Gly Arg Arg  
                   1060                  1065                  1070  
  
 Arg Ser Ile Pro Ser Asn Lys Ile Arg Gly Arg Lys Asp Ala Ser Ile  
                   1075                  1080                  1085  
  
 Thr Met Ser Thr Asn Val Gly Asn Asp Glu His Ala Arg Asn Thr Ser  
                   1090                  1095                  1100  
  
 Cys His Gly Asp Lys Gly Gln Glu Asn Gly Ala Ile Lys Gln Arg Thr  
                   1105                  1110                  1115                  1120  
  
 His Glu Arg Ser Arg Ser Leu Thr Val Ala Glu Leu Asn Glu Glu Lys  
                   1125                  1130                  1135  
  
 Arg Arg Ser Ala Leu Pro  
                   1140

<210> 27  
 <211> 559  
 <212> PRT  
 <213> *Saccharomyces cerevisiae*

<400> 27  
 Met Val Leu Leu Lys Glu Pro Val Gln Pro Leu Pro Arg Ser Ser Leu  
       1                  5                  10                  15

Leu Tyr Asn Asn Ala Ser Asn Ser Ser Arg Ile Lys Glu Thr Arg  
       20                  25                  30

Lys Val Lys Leu Leu Tyr Asn Pro Leu Thr Lys Arg Gln Ile Leu Asn  
       35                  40                  45

Asn Phe Glu Ile Leu Ala Thr Leu Gly Asn Gly Gln Tyr Gly Lys Val  
       50                  55                  60

Lys Leu Ala Arg Asp Leu Gly Thr Gly Ala Leu Val Ala Ile Lys Ile  
       65                  70                  75                  80

Leu Asn Arg Phe Lys Arg Ser Gly Tyr Ser Leu Gln Leu Lys Val  
 85 90 95  
 Glu Asn Pro Arg Val Asn Gln Glu Ile Glu Val Met Lys Arg Cys His  
 100 105 110  
 His Glu Asn Val Val Glu Leu Tyr Glu Ile Leu Asn Asp Pro Glu Ser  
 115 120 125  
 Thr Lys Val Tyr Leu Val Leu Glu Tyr Cys Ser Arg Gly Pro Val Lys  
 130 135 140  
 Trp Cys Pro Glu Asn Lys Met Glu Ile Lys Ala Val Gly Pro Ser Ile  
 145 150 155 160  
 Leu Thr Phe Gln Gln Ser Arg Lys Val Val Leu Asp Val Val Ser Gly  
 165 170 175  
 Leu Glu Tyr Leu His Ser Gln Gly Ile Thr His Arg Asp Ile Lys Pro  
 180 185 190  
 Ser Asn Leu Leu Ile Ser Ser Asn Gly Thr Val Lys Ile Ser Asp Phe  
 195 200 205  
 Gly Val Ala Met Ser Thr Ala Thr Gly Ser Thr Asn Ile Gln Ser Ser  
 210 215 220  
 His Glu Gln Leu Leu Lys Ser Arg Ala Leu Gly Thr Pro Ala Phe Phe  
 225 230 235 240  
 Ala Pro Glu Leu Cys Ser Thr Glu Lys Glu Tyr Ser Cys Ser Thr His  
 245 250 255  
 Glu Ile Trp Ser Leu Gly Val Thr Ile Tyr Cys Leu Leu Phe Gly Lys  
 260 265 270  
 Leu Pro Phe Asn Ala Asn Ser Gly Leu Glu Leu Phe Asp Ser Ile Ile  
 275 280 285  
 Asn Lys Pro Leu Glu Phe Pro Ser Tyr Glu Glu Met Leu Asn Gly Ala  
 290 295 300  
 Thr Ser Gly Ile Thr Met Glu Glu Tyr Thr Asp Ala Lys Asp Leu Leu  
 305 310 315 320  
 Lys Lys Leu Leu Gln Lys Asp Pro Asp Lys Arg Ile Lys Leu Ala Asp  
 325 330 335  
 Ile Lys Val His Pro Phe Met Cys His Tyr Gly Lys Ser Asp Ala Ala  
 340 345 350  
 Ser Val Leu Thr Asn Leu Glu Thr Phe His Glu Leu Lys Val Ser Pro  
 355 360 365  
 Pro Ser Ser Cys Lys Arg Val Glu Leu Val Ser Leu Pro Val Asn Ser  
 370 375 380

Ser Phe Ala Ser Leu Asp Ser Val Tyr Met Glu Asn Phe Asp His Asn  
 385                   390                   395                   400  
 Asn Leu Arg Thr Gly Ala Asp Arg Asn Ser Thr Tyr Ser Pro Ser Ile  
 405                   410                   415  
 Tyr Asp Ala Asn Thr Leu Ser Pro Ser Ala Tyr His Asn Ile Gly Ser  
 420                   425                   430  
 Arg Glu Ser Ser Tyr Ser Ser Phe Ser Ser Phe Thr Ser Ser Thr Ala  
 435                   440                   445  
 Phe Ala Ser Gln Ile Ser Ile Gln Asp Ala Pro Ala Ile Gly Asp Gln  
 450                   455                   460  
 Gln Cys Leu Ile Gly Glu Ser Gly Ser Ser Leu Arg Val Asn Ser Cys  
 465                   470                   475                   480  
 Glu Phe Pro Gln Tyr Thr Thr Met Ser Pro Val Gly Glu Tyr Pro Phe  
 485                   490                   495  
 Glu Ser Thr Glu Ala Ser Leu Ser Ser Thr Leu Thr Pro Val Gly Asn  
 500                   505                   510  
 Val Pro Gln Arg Ile Lys Ala His Leu Val Glu Gly Lys Ser Asn Ser  
 515                   520                   525  
 Lys Asp Asp Leu Arg Ile Glu Ala Asp Ala Ser Leu Val Phe Glu Ala  
 530                   535                   540  
 Ser Asp Ala Gln Arg Thr Arg Arg Arg Met Ser Leu Tyr Lys Leu  
 545                   550                   555

<210> 28  
 <211> 652  
 <212> PRT  
 <213> Schizosaccharomyces pombe

<400> 28  
 Met Gly Ser Val Asn Asn Glu Glu Lys Thr Leu Ile Glu Pro Gln Arg  
 1                   5                   10                   15  
 Leu Leu Arg Lys Asn Thr Trp His Pro Glu Val Asp Asp Ser Glu Val  
 20                   25                   30  
 Pro Pro Ser Val Phe Pro Glu Tyr Pro Val His Lys Ala Ile Gln Lys  
 35                   40                   45  
 Thr Ser Asp Ser Phe Arg Lys Arg Asn Tyr Ser Ala Gly Asp Tyr Val  
 50                   55                   60  
 Ile Ala Pro Leu Gly Gly Glu Arg Glu Gly Ser Ser Leu Thr His Ser  
 65                   70                   75                   80  
 Trp Thr Phe Gln Pro Gly Lys His Asn Gln Arg Leu Tyr Ser Asp Asn  
 85                   90                   95

Phe Gln Glu Ala Gln Arg Gln Trp Lys Arg Leu Gln Glu Trp Gly Glu  
 100 105 110  
 Val Lys Glu Thr Lys Lys Ile Arg Lys Arg Phe Asp Arg Phe Ser Gly  
 115 120 125  
 Arg Lys Tyr Ile Asn His Tyr Glu Ile Ile Lys Glu Leu Gly Arg Gly  
 130 135 140  
 Met His Gly Lys Val Lys Leu Gly Arg Asp Thr Val Thr Arg Glu Leu  
 145 150 155 160  
 Leu Ala Ile Lys Ile Ile Pro Lys Thr Glu Arg Arg Pro Lys Leu Gly  
 165 170 175  
 Arg Ala Asn Ala Ser Ser Gln Lys Glu Lys Val Arg Arg Glu Ile Ala  
 180 185 190  
 Ile Leu Lys Lys Cys Val His Pro Asn Val Val Arg Leu Arg Glu Val  
 195 200 205  
 Ile Asp Asp Pro Ser Ser Thr Lys Val Tyr Leu Val Leu Glu Tyr Met  
 210 215 220  
 Ser Gly Gly Glu Val Pro Trp Thr Asp Cys Asp Ser Pro Val Leu Ser  
 225 230 235 240  
 Ile Ser Glu Ala Arg Gln Tyr Phe Arg Asp Val Val Leu Gly Leu Glu  
 245 250 255  
 Tyr Leu His Tyr Gln Gly Ile Ile His Arg Asp Ile Lys Pro Ala Asn  
 260 265 270  
 Leu Leu Leu Asn Ser Ser Asn Cys Val Lys Ile Ser Asp Phe Gly Val  
 275 280 285  
 Ser Tyr Ile Ala Asn Ala Gly Leu Asn Glu Asp Asn Asp Val Glu Leu  
 290 295 300  
 Ala Lys Thr Val Gly Thr Pro Ala Phe Phe Ala Pro Glu Leu Cys Trp  
 305 310 315 320  
 Thr Asp Leu Asp Arg Pro Arg Pro Lys Ile Ser Glu Ala Ile Asp Val  
 325 330 335  
 Trp Ala Leu Gly Val Thr Leu Phe Cys Leu Leu Phe Gly Arg Cys Pro  
 340 345 350  
 Phe Asn Ala Ser Met Glu Tyr Glu Leu Phe Asp Lys Ile Val Asn Glu  
 355 360 365  
 Arg Leu Asn Ile Pro Ser Thr Pro Asp Ile Gly Glu Glu Gly Arg Asp  
 370 375 380  
 Leu Leu Lys Arg Leu Leu Cys Lys Asp Pro Glu Gln Arg Ile Thr Leu  
 385 390 395 400

Val Glu Val Lys Leu His Pro Trp Thr Leu Asp Gly Leu Lys Asp Pro  
                   405                  410                  415  
 Glu Lys Trp Leu Gln Asn Thr Asp Pro Ser Thr Val Ser Arg Val Glu  
                   420                  425                  430  
 Val Ser Thr Asp Glu Val Ala Ser Ala Ile Ser Leu Val Gly Arg Leu  
                   435                  440                  445  
 Arg Arg Lys Leu Gly Lys Leu Phe Arg Phe Arg Arg Pro Lys Ala Arg  
                   450                  455                  460  
 Val Phe Asp Ser Ser Ser Val Pro Ser Asp Ser Ser Ile Cys Arg  
                   465                  470                  475                  480  
 Pro Glu Ser Ser Gly Asn Ser Ser Ile Gly Leu Ser Ala Ser Glu Leu  
                   485                  490                  495  
 Ser Asp Ser Phe Asn Arg Leu Ala Val Asn Glu Ser Gln Lys Asp Arg  
                   500                  505                  510  
 Glu Arg Lys Gln Val His Pro Val Glu Met Gly Arg Asn Ser Ser Glu  
                   515                  520                  525  
 Lys Lys Pro Arg Cys Asp Phe Gly Trp Asp Tyr Glu Ala Phe Pro Asn  
                   530                  535                  540  
 Asp Asn Gln Asp Ala Asp Asp Ala Cys Ser Tyr Asn Thr Gly Asp Ser  
                   545                  550                  555                  560  
 Ile Pro Gln Val Ser Lys Ser Ile Asn Gly His Phe Glu Thr Tyr Ser  
                   565                  570                  575  
 Arg Thr Ser Met Asp Thr Asp Asp Val Ala Ser Phe Glu Ser Pro Asn  
                   580                  585                  590  
 Ala Lys His Glu Glu Ser Gly Met Pro Val Val Thr Phe Arg Asn Tyr  
                   595                  600                  605  
 Glu Asn Tyr Asp Ala Asn Pro Ser Asn Phe His Pro Val Val Pro Gly  
                   610                  615                  620  
 Phe Val Ser Ser Pro Asn Leu His Leu Ala Gly Gly Ser Asp Thr Pro  
                   625                  630                  635                  640  
 Ile Tyr Cys Ile Glu His Ser Phe Thr Pro Thr Asn  
                   645                  650  
  
 <210> 29  
 <211> 1408  
 <212> PRT  
 <213> Candida albicans  
  
 <400> 29  
 Met Ser Thr Ser Leu Ser His Gln Glu Leu Ser Thr Glu Lys Gly Gln  
     1              5                  10                  15

Ser Cys Pro Pro Ile Pro Asp Ser Asn Pro Leu Asn Pro Lys Ser Pro  
       20                    25                    30

Ala Leu Arg Thr Thr Ser Asn Ser Thr Ile Leu Asn Ser Pro Ile Glu  
       35                    40                    45

Thr Ile Asn Val Asn Thr Ser Ser Lys Ser Asn Ile Ser Gly Glu Ser  
       50                    55                    60

Thr Ile Asn Gly Ser Ala Tyr Ser Asn Ser Thr Thr Val Val Gln Pro  
       65                    70                    75                    80

Glu Val Phe Gly Glu Ala His Thr Thr Ser Thr His Asn Ser Ala  
       85                    90                    95

Ser Thr Arg Thr Glu Arg Asn Glu Phe Pro Asn Ser His Leu His Gln  
       100                   105                   110

His Gln Gln Glu Ser Arg Asn Asn Gly Glu Ser Asn Thr Pro Met Thr  
       115                   120                   125

Ser Pro Lys His Phe Pro Thr Asp Asp Leu Arg His Ser Leu Phe Tyr  
       130                   135                   140

Lys Ala Gly Ser Ala Ala His His Lys Ser Ala Thr Ser Ser Lys Gln  
       145                   150                   155                   160

Ser Ser Thr Thr Ser Leu Lys Asp Gly Leu Asn Asn Ala Asn Thr Tyr  
       165                   170                   175

His Phe Gln Asn Thr Phe Leu Asp Asn Asn Val Met Ser Asp Leu Glu  
       180                   185                   190

Glu Ser Pro Val Pro Asn Glu Arg Asn Pro Ile Gln Asp Thr Gly Leu  
       195                   200                   205

Gly Pro Arg Ser His Ala Thr Lys Phe Gly Val Gln Ser Thr Thr Ser  
       210                   215                   220

Leu Pro Thr Thr Ile Ser Gln Ser Arg Leu Pro Asn Ser Asn Lys Ser  
       225                   230                   235                   240

Ser Phe Phe Pro Phe Lys Ser Tyr Thr Ser Ser Pro Val Lys Glu Thr  
       245                   250                   255

Lys His Val Phe Leu Glu Tyr Asp Pro Ile Thr Arg Arg Lys Val Leu  
       260                   265                   270

Asn Thr Tyr Glu Ile Leu Arg Glu Ile Gly Lys Gly Glu His Gly Lys  
       275                   280                   285

Val Lys Leu Ala Arg Asp Leu Ile Asn Asn Glu Leu Val Ala Ile Lys  
       290                   295                   300

Ile Val Asn Arg Lys Ser Arg Lys Glu Arg Pro Ser Leu Arg Met Arg  
       305                   310                   315                   320

Lys Asn Ser Ser Ala Pro Val Ile Asn Glu Tyr Glu Leu Lys Val Lys  
           325                     330                     335  
 Arg Glu Ile Ala Ile Met Lys Lys Cys Arg His Lys His Ile Val Ala  
           340                     345                     350  
 Leu Arg Glu Val Leu Asp Asp Leu Asn Ser Leu Lys Ile Tyr Leu Val  
           355                     360                     365  
 Leu Glu Tyr Met Glu Lys Gly Glu Ile Lys Trp Lys Lys Leu Gln Ser  
           370                     375                     380  
 Asp Val Ala Lys Pro Thr Ala Asn Lys Cys Tyr Asp Ala Asn Asp Asn  
           385                     390                     395                     400  
 Glu Ile Pro Cys Cys Gly Asn Gly Arg Met Gln Gln Arg Gln Gln Ser  
           405                     410                     415  
 Leu Leu Thr Asp Glu Asp Leu Leu Ser Asn Glu Phe Ser Pro Asn Leu  
           420                     425                     430  
 Thr Phe Lys Gln Ser Arg Lys Ile Phe Arg Asp Val Leu Leu Gly Leu  
           435                     440                     445  
 Glu Tyr Leu His Met Gln Gly Ile Val His Arg Asp Ile Lys Pro Ala  
           450                     455                     460  
 Asn Leu Leu Val Ser Ala Asp Asn Ile Val Lys Ile Ser Asp Phe Gly  
           465                     470                     475                     480  
 Val Ser Phe Ala Thr Ser Leu Ala Glu Asn Asp Glu Gly Tyr Leu Val  
           485                     490                     495  
 Asn Glu Leu Asp Leu Ala Lys Thr Ala Gly Thr Pro Ala Phe Phe Ala  
           500                     505                     510  
 Pro Glu Leu Cys Gln Phe Asp Asp Glu Thr Ala Thr Glu Lys Leu Ser  
           515                     520                     525  
 Ser Ser Thr Glu Ser Met Ala Pro Pro Lys Ile Asp Tyr Lys Ile Asp  
           530                     535                     540  
 Ile Trp Ala Leu Gly Val Thr Leu Tyr Cys Leu Leu Phe Gly Lys Val  
           545                     550                     555                     560  
 Pro Phe Asn Ala Asp Thr Glu Tyr Asp Leu Phe Gln Val Ile Val Lys  
           565                     570                     575  
 Glu Pro Leu Lys Phe Pro Asn Ser Ile Lys Ala Phe Asn Pro Pro Ala  
           580                     585                     590  
 Thr Val Thr Glu Glu Phe Glu Leu Ala Lys Asp Leu Leu Ser Lys  
           595                     600                     605  
 Met Leu Asp Lys Asn Asn Arg Thr Arg Ile Glu Ile Gln Asp Ile Lys  
           610                     615                     620

Glu His Pro Phe Thr Leu Met Asp Leu Asp Asn Asp Val Asp Gly Leu  
 625 630 635 640

His Glu Leu Phe His Leu Asn Gly Asp Asn Pro Val Glu Pro Leu Ser  
 645 650 655

Phe Asp Leu Asp Glu His Asp Ile Val Ser Lys Asp Glu Val Asp Asn  
 660 665 670

Ala Val Ile Gly Val Gly Ala Arg Ile Lys Arg Ser Leu Val Arg Ala  
 675 680 685

Ile Arg Ala Gly Gly Leu Lys Asp Gly Glu Ile Arg Asn Lys Phe Ala  
 690 695 700

Ala Leu Gln Leu Glu His Ser Arg Ser Glu Asn Ser Glu Glu Ser Ser  
 705 710 715 720

Ser Gly Tyr Ser Asn Tyr Ser Ser Ser Thr Arg Leu Leu Gly Tyr Gln  
 725 730 735

Asn Gly Gln Asn Tyr Ser Met Ile Leu Ser Glu Gly Leu Pro Val Ser  
 740 745 750

Ser Ala Thr Pro Pro Ala Leu Leu Ala Ala Gln Gln Lys Arg Ser  
 755 760 765

Ser Leu Leu Ser Pro Lys Ser Gly Gly Ile Ser Glu Lys Asn Asn Pro  
 770 775 780

His Phe Pro Ser Ser Leu Ala His Gln Ile Pro Asn Thr Ser Ser Pro  
 785 790 795 800

Ser Thr Cys Ser Ser Ser Thr Ser Met Ala Phe Gln Asn His Phe Ser  
 805 810 815

Phe Ala Gly Met Arg Glu Ser Gly Lys Ser Leu Leu His Asp Met Ile  
 820 825 830

Glu Ser Asn Ser Asn Asn Ser Ser Arg Arg Gly Ser Ser Ala Gly Ile  
 835 840 845

Thr Val Ser Glu Ala Pro Gln Ile Glu Thr Lys Arg Asn Val Gly Gly  
 850 855 860

Asp Leu Tyr Leu Lys Asn Gln Ser Val Val Glu Thr Phe Lys Gly Ile  
 865 870 875 880

Gln Leu Gln Asp Asp Lys Arg Arg Arg Ser Ser Ile Phe Ser Leu His  
 885 890 895

Ser Gln Ile Gly Thr Asn Ser Asn Lys Ser Ser Leu Ser His Glu Leu  
 900 905 910

Thr Pro Thr Gln Thr Gly Ser Gly Ala Ser Thr Gln Gln Gln His Gln  
 915 920 925

His Tyr Ser Thr Asn Tyr Ser Asn Ile Ala Ala Pro Ile Pro Val Pro  
 930 935 940  
 Ala Pro Arg Lys Gln Ser Thr Ser Asp Asn Glu Gln Asp Ile Lys Ala  
 945 950 955 960  
 Pro Leu Leu His Gln Glu Lys Asn Val Met Gly Lys Pro Tyr Leu Lys  
 965 970 975  
 Ile Gly Pro Ile Ser Ile Ala Arg Glu Asp Glu Lys Ser Ala Asp Asp  
 980 985 990  
 His Pro Asp Ser Ser Ile Ile Ser Leu Pro Leu Ser Glu Ser Phe Ala  
 995 1000 1005  
 Ser Leu Asp Ser Ile Asn Asp Asp Tyr Leu Ser Arg Lys Tyr Glu Glu  
 1010 1015 1020  
 Tyr Thr Asn Asn Arg Lys Glu Asn Ser Lys Ser Glu Gly Asn Val Pro  
 1025 1030 1035 1040  
 Val Ile Ser Leu Arg Arg Lys Ser Ser Leu Ser Glu Ser Asp Leu Thr  
 1045 1050 1055  
 Arg His Val Gln Leu Lys Asp Pro Phe Gly Lys Phe Lys Pro Asp Gly  
 1060 1065 1070  
 Ser Glu Ile Ala Glu Lys Phe Lys Ala Phe Asn Leu Gly Asn Leu Met  
 1075 1080 1085  
 Lys Thr Gly Gly Lys Phe Ala Leu Ala Glu His Asn Ser Ser Asp Ser  
 1090 1095 1100  
 Gln Gln Ile Lys Gly Asn Asn Tyr Gln Ser Ser Asp Asp Gly Ile Ala  
 1105 1110 1115 1120  
 Pro Lys Ala Ile Val Pro Ala Ile Ser Tyr Ser Ser Asp Ser Tyr  
 1125 1130 1135  
 Ser Ser Cys Ser Ser Ser Phe Asp Asp Glu Asp Glu Ser Asp Asp  
 1140 1145 1150  
 Asp Glu Glu Asn Leu Thr Leu Ala Phe Gln Ser Lys Val Ala Pro Ile  
 1155 1160 1165  
 Ser Arg Ala Asn Phe Leu Ser Leu Thr Gly Arg Ala Lys Ser His Asp  
 1170 1175 1180  
 Ser Asn Leu Pro Thr Leu Arg Gln Asn Arg Glu Lys Gly Arg Gln Leu  
 1185 1190 1195 1200  
 Asn Pro Glu Phe Gln Gly Pro Ile Ile Phe His Asp Gly Leu Pro Glu  
 1205 1210 1215  
 Phe Glu Asp Val Pro Asp Gly Leu Ile Asn Ser Asn Pro Ile Gly Asn  
 1220 1225 1230

Asn Asn Val Asn Gly Asn Ser Ala Phe Asn Ser Gly Tyr Ser Tyr Tyr  
 1235 1240 1245  
 Asp Asn Val Asn Pro Thr Val Val Ser Ser Asn Val Ser Thr Ala Thr  
 1250 1255 1260  
 Leu Thr Met Gly Met Ala Pro Ser Glu Ser Val Glu Thr Asn Val Glu  
 1265 1270 1275 1280  
 Ala Pro Ala Gln Glu Asn Ala Val Lys Val Ser Ser Pro Leu Asn Pro  
 1285 1290 1295  
 His Lys Asn Thr Ser Ser Arg Ser Asp Ile Leu Lys Asp Leu Lys Lys  
 1300 1305 1310  
 Asn Thr Ser Ile Ser Phe Gly Glu Ile Leu Phe Asn Asp Gln Phe Asn  
 1315 1320 1325  
 Asn His Tyr Lys Lys Asp Pro Val Tyr Ser Pro Phe Pro Ser Ala Lys  
 1330 1335 1340  
 His Leu Asp Asn Asp Gln Glu Thr Ile Val Lys Glu Ser Ala Ser Lys  
 1345 1350 1355 1360  
 Phe His Glu His Arg Pro Thr Tyr Tyr Arg Ser Asn Ser Val Thr Ile  
 1365 1370 1375  
 Gly Leu Leu His Arg Ser Thr His Arg Glu Asp Asp Asp Val Ser  
 1380 1385 1390  
 Gln Thr Gly Asn Asp Leu Glu Gln Leu Ile Thr Lys Glu Lys Gln Gly  
 1395 1400 1405  
  
 <210> 30  
 <211> 855  
 <212> PRT  
 <213> *Saccharomyces cerevisiae*  
  
 <400> 30  
 Met Gly Asp Glu Lys Leu Ser Arg His Thr Ser Leu Lys Arg Ala Arg  
 1 5 10 15  
  
 Ser Leu Ser Glu Ser Ile Lys Gly Leu Phe Lys Pro Ser Gly Ile Ser  
 20 25 30  
  
 Gly Ser Asn Asn Ala Ala Ala Pro Ser Ser Arg Pro Gly Gln Asp Gln  
 35 40 45  
  
 Ala His Ser His Gln Thr Ala Arg Ile Ile Thr Ser Asn Val Ser Ser  
 50 55 60  
  
 Pro Ser Ile Ser Pro Val His Ser Pro Val Leu Gln Ala Ala Pro Lys  
 65 70 75 80  
  
 His His Lys Leu Gly Val Pro Asn Ile Ala Lys Leu Ser Leu Ser Pro  
 85 90 95

Ser Arg Glu Pro Ser Leu Asn Ser Glu Asn Glu Met Phe Ser Gln Glu  
                   100                     105                     110  
  
 Ser Phe Ile Ser Glu Lys Asp Glu Asp Glu Ala Asn Leu Leu Glu Arg  
                   115                     120                     125  
  
 Glu Asp Leu Gln Asn Lys Lys Glu Glu Lys Ala Arg Ala Lys His Val  
                   130                     135                     140  
  
 Arg Ser Lys Glu Ala Tyr Val Pro His His Arg Tyr Thr Val Gly Ser  
                   145                     150                     155                     160  
  
 Asp Glu Val Glu Arg Gln Pro Arg Glu Arg Leu Lys Asn Phe Pro Gln  
                   165                     170                     175  
  
 Asn Ala Gly Ser Ser Asn Pro Ala Asn Ser Asn Ala Asn His Val Leu  
                   180                     185                     190  
  
 Asp Gln Glu Asn Asn Phe Ser Ile Asp Ala Met Leu Asp Tyr Asp Glu  
                   195                     200                     205  
  
 Glu Ser Lys Leu Arg Arg Arg Asn Ser Leu Gly Val Arg Asn His Ser  
                   210                     215                     220  
  
 Asn Arg Thr Arg Ser Arg Lys Asn Ser Leu Ser Thr Pro Arg Ser Pro  
                   225                     230                     235                     240  
  
 Pro Met Lys Asn Gly Asn Gly Gly Met Asn Ser Asn Ala Thr Asn Asn  
                   245                     250                     255  
  
 Val Gly Asn Gly Thr Gly Asn Arg Ile Tyr Met Arg Gly Arg Asn His  
                   260                     265                     270  
  
 Ser Asp Ser Ile Ser Ala Ser Ser Leu Pro Lys Phe Gln Glu Ile Glu  
                   275                     280                     285  
  
 Cys Lys Cys Ile Leu Asp Leu Gly His Phe Lys Val Phe Glu Asn Gly  
                   290                     295                     300  
  
 Tyr His Glu His Ser Leu Arg Val Leu Pro Ile Ile Thr Asn Asn Lys  
                   305                     310                     315                     320  
  
 Asn Val Asp Ser Gly Asp Glu Lys Asp Ala Asp Ala Ser Val Asn Ser  
                   325                     330                     335  
  
 Gly Asp Asp Gly Asp Asn Asp Ser Glu Ala Asn Met His Lys Gln Lys  
                   340                     345                     350  
  
 Ser Val Phe Ser Leu Ser Gly Leu Phe Lys Ser His Lys Asp Gly Asn  
                   355                     360                     365  
  
 Gln Gln Gln Gln Gln Gln Gln Gln Glu Glu Asn Gly Glu Gln Ile  
                   370                     375                     380  
  
 Asn Leu Glu Lys Ala Phe Ser Ile Ile Pro Ser Gln Arg Phe Ile Lys  
                   385                     390                     395                     400

Ser Gln Thr Leu Lys Lys Ser Arg Thr Ser Asn Leu Lys Asn Gly Asn  
                   405                  410                  415  
  
 Asn Asp Glu Leu Met Lys Asn Asp Gly Lys Asn Ile Pro Gln Ile Val  
                   420                  425                  430  
  
 Asn Pro Asn Ala Ala Val Gly Val Glu Glu Leu Lys Leu Ile Asn Ala  
                   435                  440                  445  
  
 Leu Ser Glu Lys Ile Arg Lys Gly Leu Lys Ser Glu Asn Thr Lys Gly  
                   450                  455                  460  
  
 Asn Asn Gly Glu Gly Arg Ser Asn Ser Asn Lys Gln Glu Asp Ser Asp  
                   465                  470                  475                  480  
  
 Asp Thr Glu Gly Lys Ala Gly Thr Thr Asn Asp Asp Thr Ser His Lys  
                   485                  490                  495  
  
 Pro Cys Ser Gln Lys Tyr Gly Lys Ser Ile Gly Val Val Gly Ala Gly  
                   500                  505                  510  
  
 Ala Tyr Gly Val Val Lys Ile Cys Ala Arg Cys Lys Thr Ala Lys Asp  
                   515                  520                  525  
  
 Val Leu Pro Tyr Ser Thr Tyr Ser Asn Gly Lys Lys Leu Phe Phe Ala  
                   530                  535                  540  
  
 Val Lys Glu Leu Lys Pro Lys Pro Gly Asp Gln Ile Asp Lys Phe Cys  
                   545                  550                  555                  560  
  
 Thr Arg Leu Thr Ser Glu Phe Ile Ile Gly His Ser Leu Ser His Pro  
                   565                  570                  575  
  
 His Phe Glu Ala Asn Ala Met Ile Ala Gly Asn Val Ser Arg Thr Thr  
                   580                  585                  590  
  
 Pro Pro Lys His Val Phe Asn Ala Pro Asn Ile Leu Lys Ile Leu Asp  
                   595                  600                  605  
  
 Leu Met Glu Tyr Ser Asn Ser Phe Val Glu Val Met Glu Phe Cys Ala  
                   610                  615                  620  
  
 Ser Gly Asp Leu Tyr Ser Leu Leu Thr Arg Asn Asn Ile Ser Asn Glu  
                   625                  630                  635                  640  
  
 Ser Asn Asn Gly Ser Ser Arg Leu Ile Gln Thr Val Lys Glu Gly Ser  
                   645                  650                  655  
  
 Gly Ser Pro Leu His Pro Leu Glu Ala Asp Cys Phe Met Lys Gln Leu  
                   660                  665                  670  
  
 Leu Asn Gly Val Gln Tyr Met His Asp His Gly Ile Ala His Cys Asp  
                   675                  680                  685  
  
 Leu Lys Pro Glu Asn Ile Leu Phe Gln Pro Asn Gly Leu Leu Lys Ile  
                   690                  695                  700

Cys Asp Phe Gly Thr Ser Ser Val Phe Gln Thr Ala Trp Glu Lys His  
 705 710 715 720

Val His Phe Gln Ser Gly Ala Met Gly Ser Glu Pro Tyr Val Ala Pro  
 725 730 735

Glu Glu Phe Ile Arg Asp Ala Glu Tyr Asp Pro Arg Leu Val Asp Cys  
 740 745 750

Trp Ser Cys Gly Ile Val Tyr Cys Thr Met Val Met Gly Gln Tyr Leu  
 755 760 765

Trp Lys Ile Ala Ile Pro Glu Lys Asp Ser Leu Phe Lys Ser Phe Leu  
 770 775 780

Ser Glu Ile Lys Asp Asp Gly Gln Phe Tyr Leu Phe Glu Glu Leu Arg  
 785 790 795 800

His Val Ser Ser Glu Leu Asn Arg Leu Arg Lys Ile Ala Leu Tyr Arg  
 805 810 815

Thr Phe Gln Val Asp Pro Thr Lys Arg Ile Thr Ile Glu Gln Leu Leu  
 820 825 830

Gln Ser Ser Trp Met Arg Lys Thr Lys Cys Cys Val Val Tyr Arg His  
 835 840 845

Leu His Thr Lys Val Ser Lys  
 850 855

<210> 31  
 <211> 734  
 <212> PRT  
 <213> *Saccharomyces cerevisiae*

<400> 31  
 Met Met Asp Ser Lys Thr Leu Thr Ala Ser Met Val Met Gln Glu Glu  
 1 5 10 15

Lys Lys Arg Gln Gln Pro Val Thr Arg Arg Val Arg Ser Phe Ser Glu  
 20 25 30

Ser Phe Lys Asn Leu Phe Arg Pro Pro Arg Ser Arg Asp Ser Ser Pro  
 35 40 45

Ile Asn Val Thr Arg Ile Pro Tyr Arg Ser Ser Ser Thr Ser Pro Lys  
 50 55 60

Arg Ser Ser Glu Pro Pro Arg Arg Ser Thr Val Ser Ala Gln Ile Leu  
 65 70 75 80

Asp Pro Lys Asn Ser Pro Ile Arg Gln Arg Ser Tyr Thr Leu Lys Cys  
 85 90 95

Cys Thr Pro Gly Leu Ser His Pro Phe Arg Gln Thr Gly Ser Gly Ala  
 100 105 110

Ser Asn Ser Pro Thr Arg His Arg Ser Ile Ser Gly Glu Glu Gln Glu  
 115 120 125  
 Ile Val Asn Ser Leu Pro Glu Tyr Lys Arg Ser Ala Ser His Thr Phe  
 130 135 140  
 His Gly Ile Arg Arg Pro Arg Ser Arg Ser Ser Val Ser Ser Cys  
 145 150 155 160  
 Asp Ser Ser Asn Gly Thr Thr Ser Ser Asp Ser Gln Trp Ala Met  
 165 170 175  
 Asp Ser Leu Leu Asp Asp Ser Asp Asn Asp Leu Thr Pro Tyr Arg Gly  
 180 185 190  
 Ser Asn Lys Asp Ile Leu Lys Ser Lys Asp Arg Ala Pro Tyr Asn Tyr  
 195 200 205  
 Ile Asp Asp Tyr Asn Lys Lys Ala Leu Arg Arg Ala Thr Ser Tyr Pro  
 210 215 220  
 Asn Pro Leu Pro Ser Lys Gln Phe Tyr Asn Glu Arg Leu Tyr Thr Arg  
 225 230 235 240  
 Arg Ser His Pro Asp Glu Glu Ser Leu Glu Ser Leu Pro Arg Phe Ala  
 245 250 255  
 Gly Ala Asp Val Gln Cys Ile Ile Glu Gln Asn Gly Phe Lys Val Tyr  
 260 265 270  
 Glu Asp Gly Ser His Glu His Asn Ile Lys Leu Ser Gly Val Ile Ala  
 275 280 285  
 Lys Leu Glu Lys Gly Asn Ser Leu Pro Ala His Arg Gln Gly Ser Leu  
 290 295 300  
 Ser Arg Pro Arg Leu Gly Ile Thr Leu Ser Gly Leu Phe Lys His His  
 305 310 315 320  
 Lys Asn Glu Cys Asp Ile Glu Asn Ala Leu Ser Leu Leu Pro Asn Val  
 325 330 335  
 Glu Lys Ser Gln Thr Asn His Glu Lys Arg Thr Gly Gln Ser Pro Asn  
 340 345 350  
 Asp Ser Asn Arg Ser Ser Pro Thr Gln Gly Arg Glu Asp Tyr Leu Lys  
 355 360 365  
 Ile Val Asn Pro Asp Ala Ser Leu Gly Ser Asp Glu Leu Lys Leu Ile  
 370 375 380  
 Asn Ser Leu Ser Ser Arg Ile His Lys Ser Leu Gln Asn Tyr Leu Gln  
 385 390 395 400  
 Glu Lys Asn Leu Lys Pro Ala Glu Cys Ile Gly Glu Gln Ala Pro Thr  
 405 410 415

Phe Gln Asp Asn Tyr Gly His Pro Val Gly Leu Val Gly Ala Gly Ala  
 420 425 430  
 Tyr Gly Glu Val Lys Leu Cys Ala Arg Leu Arg Asn Glu Lys Asp Ser  
 435 440 445  
 Pro Pro Phe Glu Thr Tyr His Asp Ser Lys Tyr Ile Tyr Tyr Ala Val  
 450 455 460  
 Lys Glu Leu Lys Pro Lys Pro Asp Ser Asp Leu Glu Lys Phe Cys Thr  
 465 470 475 480  
 Lys Ile Thr Ser Glu Phe Ile Ile Gly His Ser Leu Ser His Tyr His  
 485 490 495  
 Lys Asn Gly Lys Lys Pro Ala Pro Asn Ile Leu Asn Val Phe Asp Ile  
 500 505 510  
 Leu Glu Asp Ser Ser Ser Phe Ile Glu Val Met Glu Phe Cys Pro Ala  
 515 520 525  
 Gly Asp Leu Tyr Gly Met Leu Val Gly Lys Ser Lys Leu Lys Gly Arg  
 530 535 540  
 Leu His Pro Leu Glu Ala Asp Cys Phe Met Lys Gln Leu Leu His Gly  
 545 550 555 560  
 Val Lys Phe Met His Asp His Gly Ile Ala His Cys Asp Leu Lys Pro  
 565 570 575  
 Glu Asn Ile Leu Phe Tyr Pro His Gly Leu Leu Lys Ile Cys Asp Phe  
 580 585 590  
 Gly Thr Ser Ser Val Phe Gln Thr Ala Trp Glu Arg Arg Val His Ala  
 595 600 605  
 Gln Lys Gly Ile Ile Gly Ser Glu Pro Tyr Val Ala Pro Glu Glu Phe  
 610 615 620  
 Val Asp Gly Glu Tyr Tyr Asp Pro Arg Leu Ile Asp Cys Trp Ser Cys  
 625 630 635 640  
 Gly Val Val Tyr Ile Thr Met Ile Leu Gly His Tyr Leu Trp Lys Val  
 645 650 655  
 Ala Ser Arg Glu Lys Asp Met Ser Tyr Asp Glu Phe Tyr Lys Glu Met  
 660 665 670  
 Gln Arg Lys Asn Gln Phe Arg Val Phe Glu Glu Leu Lys His Val Asn  
 675 680 685  
 Ser Glu Leu Ala Thr Asn Arg Lys Ile Ala Leu Tyr Arg Ile Phe Gln  
 690 695 700  
 Trp Glu Pro Arg Lys Arg Ile Ser Val Gly Lys Leu Leu Asp Met Gln  
 705 710 715 720

Trp Met Lys Ser Thr Asn Cys Cys Leu Ile Tyr Asp Ser Thr  
 725 730

<210> 32  
 <211> 789  
 <212> PRT  
 <213> *Saccharomyces cerevisiae*

<400> 32  
 Met Ser Ser Leu Thr Arg Leu Leu Gln Glu Lys Arg Lys Asn Glu Thr  
 1 5 10 15

Ser Asn Ser Ser Pro Arg Thr Ser Ala Asp Thr Leu Thr Thr Thr Pro  
 20 25 30

Glu Ser Gln Ser Leu Asp Leu His Ser Arg Asn Lys Ser Ser Ser His  
 35 40 45

Ile Gly Ser Val Ser Asn Ser Ser Ser Asp Arg Asn Arg Ala Asn  
 50 55 60

Val Pro Val Pro Gly Ser Val Thr Thr Val Thr Gln Ile Tyr Ser Glu  
 65 70 75 80

Glu Asp Ser Ser Ser Thr Ala Gly Ser Ser Leu Asp Asp Arg Asn Gln  
 85 90 95

Phe Ser Ser Ser Phe Leu Asn Ala Asn Phe Ala His Thr Ala Ser Phe  
 100 105 110

Tyr Gly Thr Ser Ala Gln Ser Arg Asp Arg Phe Gly Ser Leu Ile Asn  
 115 120 125

Asp Gln Gly Thr Ala Gly Leu Ser Ser His Gly Gly Ser Phe Ala Ala  
 130 135 140

Gln Asn Arg Ile Thr Ser Arg Leu Ser Thr Thr Ser His Thr Ser Gly  
 145 150 155 160

Arg Ala Ile Pro Ser Leu Ser Ser Ile Pro Tyr Ser Val Pro Asn  
 165 170 175

Ser Asn Lys Asp Asn Asn Ser Ser Asn Ser Asn Ser Ser Leu Ser  
 180 185 190

Ser Ser Trp Leu Glu Thr Tyr Ala Gly Gly Met Pro Asn Asn Ile Thr  
 195 200 205

His Glu Ser Asn Val Ile Ser Ser Pro Lys Val Asp Ser Val Glu Pro  
 210 215 220

Arg Phe Val Ile Ser Lys Gln Lys Leu Gln Lys Ala Ser Met Asp Ser  
 225 230 235 240

Asn Asn Ala Asn Ala Thr Gln Ser Arg Ser Ile Ser Arg Ser Gly Ser  
 245 250 255

Phe Ser Ser Gln Leu Gly Asn Phe Phe Ser Lys Asn Ser Lys Glu  
 260 265 270  
 Ser Ser Asn Ser Asn Ser Ala Gly Met Ser Phe Ser Ala Asn Ser Asn  
 275 280 285  
 Gly Pro Ser Pro Asn Ile Lys Asn Pro Asn Val Thr Asn Gly Ser Thr  
 290 295 300  
 Pro Ile Pro Lys Pro Ile Arg Ala Arg Gln Ser Ser Ile Tyr Ser Ala  
 305 310 315 320  
 Ser Arg Gln Pro Thr Gly Ser Tyr Thr Asp Asn Phe Tyr Gly Ser Pro  
 325 330 335  
 Ser Ser Val His Asp His Leu Pro Pro Ser Gln Ser Val Pro Arg Ser  
 340 345 350  
 Gln His Ser Ser Ile Gly Asp Leu Lys Arg Phe Phe Lys Lys Ser Ser  
 355 360 365  
 Asn Ser Asn Leu Ser Ser Asn Ser Asn Asn Val Ile Pro Asn Gly Ser  
 370 375 380  
 Pro Leu Ser Ser Gly Ile Ala Val Pro Ser His Ser His Ser Ser Ser  
 385 390 395 400  
 His Phe Ala Ala Gly Asn Asn Ser Tyr Ser Thr Ser Tyr Asn Gly Asn  
 405 410 415  
 Gly Asp Thr Ile Tyr Ser His Ser His Gly Gly Ser Gly Ile Pro Phe  
 420 425 430  
 Ser Lys Arg Tyr Ile Lys Thr Gly Ala Asp Leu Gly Ala Gly Ala Gly  
 435 440 445  
 Gly Ser Val Lys Leu Ala Gln Arg Ile Ser Asp Asn Lys Ile Phe Ala  
 450 455 460  
 Val Lys Glu Phe Arg Thr Lys Phe Glu Asn Glu Ser Lys Arg Asp Tyr  
 465 470 475 480  
 Val Lys Lys Ile Thr Ser Glu Tyr Cys Ile Gly Thr Thr Leu Asn His  
 485 490 495  
 Pro Asn Ile Ile Glu Thr Ile Glu Ile Val Tyr Glu Asn Asp Arg Ile  
 500 505 510  
 Leu Gln Val Met Glu Tyr Cys Glu Tyr Asp Leu Phe Ala Ile Val Met  
 515 520 525  
 Ser Asn Lys Met Ser Tyr Glu Glu Ile Cys Cys Cys Phe Lys Gln Ile  
 530 535 540  
 Leu Thr Gly Val Gln Tyr Leu His Ser Ile Gly Leu Ala His Arg Asp  
 545 550 555 560

Leu Lys Leu Asp Asn Cys Val Ile Asn Glu Lys Gly Ile Val Lys Leu  
               565                  570                  575  
 Ile Asp Phe Gly Ala Ala Val Val Phe Ser Tyr Pro Phe Ser Lys Asn  
               580                  585                  590  
 Leu Val Glu Ala Ser Gly Ile Val Gly Ser Asp Pro Tyr Leu Ala Pro  
               595                  600                  605  
 Glu Val Cys Ile Phe Ala Lys Tyr Asp Pro Arg Pro Val Asp Ile Trp  
               610                  615                  620  
 Ser Ser Ala Ile Ile Phe Ala Cys Met Ile Leu Lys Lys Phe Pro Trp  
               625                  630                  635                  640  
 Lys Ile Pro Lys Leu Arg Asp Asn Ser Phe Lys Leu Phe Cys Ser Gly  
               645                  650                  655  
 Arg Asp Cys Asp Ser Leu Ser Ser Leu Val Thr Arg Thr Pro Asp Pro  
               660                  665                  670  
 Pro Ser Tyr Asp Glu Ser His Ser Thr Glu Lys Lys Lys Pro Glu Ser  
               675                  680                  685  
 Ser Ser Asn Asn Val Ser Asp Pro Asn Asn Val Asn Ile Gly Pro Gln  
               690                  695                  700  
 Arg Leu Leu His Ser Leu Pro Glu Glu Thr Gln His Ile Val Gly Arg  
               705                  710                  715                  720  
 Met Ile Asp Leu Ala Pro Ala Cys Arg Gly Asn Ile Glu Glu Ile Met  
               725                  730                  735  
 Glu Asp Pro Trp Ile Arg Ser Ile Asp Met Cys His Leu Val Glu Asp  
               740                  745                  750  
 Gly Leu Ser Phe Lys Val Val Arg Gly Glu Asp His His His Thr Gln  
               755                  760                  765  
 Val Asp Gln Ser Glu Ala His Ile Ala Gly Leu Glu Lys Lys Lys Lys  
               770                  775                  780  
 Lys Gln Asn Asn Gln  
               785  
  
 <210> 33  
 <211> 699  
 <212> PRT  
 <213> *Saccharomyces cerevisiae*  
  
 <400> 33  
 Met Ser Leu Ser Arg Ile Leu Arg Tyr Asn Gln Arg Asn Asn Lys Thr  
     1              5                  10                  15  
 Thr Ala Ser Leu Thr Ala Glu His Ala Tyr Ser Asp Asn Trp Ala Tyr  
     20                  25                  30



Asp Arg Asp Gln Ile Ile Gln Ala Leu Tyr Ser Asn Ile Glu Ala Ser  
           340                     345                     350  
  
 Thr Asp Leu Val Ser Arg Lys Tyr Arg Asp Leu Asp Val Val Leu Gly  
           355                     360                     365  
  
 Glu Gly Ser Gly Gly Lys Val Lys Leu Val Gln Arg Val Leu Asp Asn  
           370                     375                     380  
  
 Lys Val Phe Ala Leu Lys Glu Tyr Arg Ser Lys Lys Lys Arg Glu Ser  
           385                     390                     395                     400  
  
 Glu Arg Lys Tyr Ile Lys Asn Ile Ile Ser Glu Tyr Cys Ile Ala Ser  
           405                     410                     415  
  
 Thr Leu Lys Asn Pro Asn Ile Cys Glu Thr Leu Glu Ile Leu Tyr Glu  
           420                     425                     430  
  
 Lys Gly Lys Ile Phe Gln Ile Leu Glu Tyr Cys Glu Tyr Asp Leu Phe  
           435                     440                     445  
  
 Ser Leu Val Met Ser Glu Lys Met His Tyr Glu Glu Ile Cys Cys Leu  
           450                     455                     460  
  
 Phe Lys Gln Leu Ile Asn Gly Val Lys Tyr Leu His Asp Ile Gly Leu  
           465                     470                     475                     480  
  
 Ser His Arg Asp Leu Lys Leu Asp Asn Cys Val Val Thr Arg Arg Gly  
           485                     490                     495  
  
 Ile Leu Lys Leu Ile Asp Phe Gly Ala Ser Ser Val Phe His Tyr Pro  
           500                     505                     510  
  
 Leu Ser Ser Gln Met Ile Glu Ala Asn Gly Ile Val Gly Ser Asp Pro  
           515                     520                     525  
  
 Tyr Leu Ser Pro Glu Val Phe Tyr Phe Asn Glu Tyr Asp Pro Arg Ala  
           530                     535                     540  
  
 Leu Asp Val Trp Ser Val Gly Ile Ile Phe Phe Cys Met Ile Thr Arg  
           545                     550                     555                     560  
  
 Arg Phe Pro Trp Lys Tyr Pro Lys Val Lys Asp Val Gln Phe Lys Ala  
           565                     570                     575  
  
 Phe Cys Ser Gly Arg Gly Val Ser Ser Phe Lys Asp Leu Val Thr Arg  
           580                     585                     590  
  
 Pro Ala Thr Asp Asp Ser Asn Asn Tyr Asp Asn Asp Gly Tyr Glu Glu  
           595                     600                     605  
  
 Gly Val Ile Asp Met Gly Pro Asn Phe Ile Leu His Arg Leu Pro Glu  
           610                     615                     620  
  
 Glu Thr His Lys Ile Met Arg Arg Ile Leu Glu Val Ser Pro Phe Arg  
           625                     630                     635                     640

Arg Ile Thr Ile Asn Gly Ile Leu Gln Asp Gly Trp Ile Lys Glu Ile  
                   645                  650                  655  
 Glu Thr Cys Gln Val Val Gly Ala Ala Ser Pro Asn Glu Ala Ser Leu  
                   660                  665                  670  
 Arg Ile Ile Asn Lys Gly Asn His Ile His Thr Asn Ile Asp Gln Arg  
                   675                  680                  685  
 Tyr Ala His Ile Gly Gly Leu His Gln Arg Thr  
                   690                  695

<210> 34  
 <211> 560  
 <212> PRT  
 <213> *Saccharomyces cerevisiae*

<400> 34  
 Met Thr Val Ser His Asn His Ser Thr Lys Ile Ser Gln Gln Pro Ile  
     1                  5                  10                  15  
 Ser Ser Val Ser Ala Phe Lys Phe Phe Gly Lys Lys Leu Leu Ser Ser  
     20                  25                  30

Ser His Gly Asn Lys Leu Lys Lys Ala Ser Leu Pro Pro Asp Phe  
     35                  40                  45

His Ser Thr Ser Thr Asn Asp Ser Glu Ser Ser Ser Pro Lys Leu Pro  
     50                  55                  60

Asn Ser Leu Lys Thr Ser Arg Arg Ala Asn Ser Phe Ala His Thr Thr  
     65                  70                  75                  80

Asn Ser Lys Arg Ser Leu Ser Ser Ala Ser Thr Lys Ile Leu Pro Pro  
     85                  90                  95

Ala Gly Ser Ser Thr Ser Ile Ser Arg Gly Asn Arg His Ser Ser Thr  
     100                  105                  110

Ser Arg Asn Leu Ser Asn Ser Lys Phe Ser Ser Glu Arg Leu Val Tyr  
     115                  120                  125

Asn Pro Tyr Gly Val Ser Thr Pro Ser Thr Ser Leu Ser Ser Val Ser  
     130                  135                  140

Thr Ser Met Lys Lys Asp Pro Asp Leu Gly Phe Tyr Leu His Asp Gly  
     145                  150                  155                  160

Asp Ser Lys Ile Arg Met Leu Pro Ile Pro Ile Val Asp Pro Asn Glu  
     165                  170                  175

Tyr Leu Pro Asp Glu Met Lys Glu Ala Ser Ile Gln Leu Ser Asp Asn  
     180                  185                  190

Phe Val Phe Asp Asp Glu Asn Lys Thr Ile Gly Trp Gly Gly Ser Cys  
     195                  200                  205

Glu Val Arg Lys Ile Arg Ser Lys Tyr Arg Lys Lys Asp Val Phe Ala  
 210 215 220

Leu Lys Lys Leu Asn Met Ile Tyr Asn Glu Thr Pro Glu Lys Phe Tyr  
 225 230 235 240

Asn Ala Ala Pro Lys Glu Phe Ile Ile Ala Lys Gln Leu Ser His His  
 245 250 255

Val His Ile Thr Asn Thr Phe Leu Leu Val Lys Val Pro Thr Thr Val  
 260 265 270

Tyr Thr Thr Arg Gly Trp Gly Phe Val Met Glu Leu Gly Leu Arg Asp  
 275 280 285

Leu Phe Ala Met Ile Gln Lys Ser Gly Trp Arg His Val Ala Leu Ala  
 290 295 300

Glu Lys Phe Cys Ile Phe Lys Gln Val Ala Cys Gly Val Lys Phe Cys  
 305 310 315 320

His Asp Gln Gly Ile Ala His Arg Asp Leu Lys Pro Glu Asn Val Leu  
 325 330 335

Leu Ser Pro Asp Gly Val Cys Lys Leu Thr Asp Phe Gly Ile Ser Asp  
 340 345 350

Trp Tyr His His Gly Ser Thr Arg Pro Val Gln Pro Cys Gln Glu Val  
 355 360 365

Arg Arg Asp Asp Arg Leu Ala Pro Tyr Ala Pro Pro Glu Val Met Phe  
 370 375 380

Tyr Asp Ser Lys Lys His Tyr Asp Thr Glu Leu Gln Gln Pro Tyr Asp  
 385 390 395 400

Pro Arg Ala Leu Asp Cys Tyr Gly Leu Gly Ile Ile Leu Met Thr Leu  
 405 410 415

Val Asn Asn Val Ile Pro Phe Leu Glu Ser Cys Ser Phe Asp Thr Gly  
 420 425 430

Phe Arg Asp Tyr Cys Asp Ala Tyr Glu Asn Phe Ile Arg Leu His Asp  
 435 440 445

Arg Ala Phe Arg Asn Arg Ala Ile Thr Ala Arg Gly Arg Glu Trp Ser  
 450 455 460

Ile Thr Trp Leu Glu Ile Ser Arg Thr Asp Met His Leu Ala Trp His  
 465 470 475 480

Gly Gly Ser Leu Thr Gln Lys Pro Pro Pro Ala Thr Pro Ser Thr Thr  
 485 490 495

Ser Ser Lys Thr His Gly Ser Lys Glu Leu Arg Leu Val Leu Met Pro  
 500 505 510

Thr Thr Asn Met Cys Val Arg Asn Leu Leu Ser Lys Pro Leu Arg Thr  
 515 520 525  
 Arg Ile Arg Gly Val Ser Ile Ser Leu Gln Met Leu Leu Gln Pro His  
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 Pro Pro Gln Thr His Ser Leu Arg Thr Glu Ser Pro Ser Gly Gln Trp  
 545 550 555 560  
  
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 <211> 818  
 <212> PRT  
 <213> *Saccharomyces cerevisiae*  
  
 <400> 35  
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 Ser Thr Leu Lys Leu Leu Gly Lys Arg Leu Phe Asn Ser Ser Ser His  
 20 25 30  
 Thr Asp Asn Ser Ser Leu Leu Leu Ser Ala Glu Gln Leu Gly Asn Gly  
 35 40 45  
 Arg Ser Leu Arg Lys Arg Pro Thr Ser Pro Ser Ile Ser Gly Ser Gly  
 50 55 60  
 Ser Gly Gly Asn Ser Pro Ser Ser Ser Ala Gly Ala Arg Gln Arg Ser  
 65 70 75 80  
 Ala Ser Leu His Arg Arg Lys Asn Asn Ala Ser Val Gly Phe Ser Asn  
 85 90 95  
 Gly Ser Val Ser Ser His Lys Ser Ser Val Ala Leu Gln Asp Leu Ile  
 100 105 110  
 Lys His Asn Asn Asn Pro Tyr Leu Asn Ser Pro Ser Asp Ile Leu Gly  
 115 120 125  
 Thr Gly Thr Gly Ile Ala Ser Thr Arg Asp Arg Asp Arg Ala Val Leu  
 130 135 140  
 Asp Arg Glu Lys Glu Lys Glu Arg Ala Arg Asn Lys Glu Arg Asn Thr  
 145 150 155 160  
 His His Ala Gly Leu Pro Gln Arg Ser Asn Ser Met Ala Ser His His  
 165 170 175  
 Phe Pro Asn Glu Asn Ile Val Tyr Asn Pro Tyr Gly Ile Ser Pro Asn  
 180 185 190  
 His Ala Arg Pro Asp Thr Ala Phe Ala Asp Thr Leu Asn Thr Asn Lys  
 195 200 205  
 Glu Asn Asp Leu Ser Phe Tyr Met His Asp Gly Asn Ser Lys Ile Arg  
 210 215 220

Met Leu Pro Leu Pro Ile Ala Asn Pro Asn Asp Phe Leu Pro Glu Asp  
 225 230 235 240  
 Met Lys Gln Tyr Ser Val His Leu Thr Asp Asn Phe Val Phe Asp Thr  
 245 250 255  
 Asp Asn Lys Pro Ile Gly Ser Gly Ser Ser Glu Val Arg Lys Val  
 260 265 270  
 Lys Ser Ser Tyr Arg Gln Lys Asp Val Tyr Ala Leu Lys Lys Leu Asn  
 275 280 285  
 Met Ile Tyr His Glu Ser Pro Glu Lys Phe Tyr Lys Arg Cys Ser Lys  
 290 295 300  
 Glu Phe Ile Ile Ala Lys His Leu Ser His Asn Val His Ile Thr Asn  
 305 310 315 320  
 Thr Phe Tyr Leu Leu Lys Val Pro Thr Thr Tyr Thr Thr Arg Gly  
 325 330 335  
 Trp Gly Phe Ile Met Glu Leu Gly Val Lys Asp Leu Phe Gln Leu Met  
 340 345 350  
 Glu Arg Thr Gly Trp Lys Asn Val Pro Phe Asn Glu Lys Tyr Cys Leu  
 355 360 365  
 Phe Lys Gln Val Ala Gln Gly Ile Lys Phe Cys His Asp Asn Gly Ile  
 370 375 380  
 Ala His Arg Asp Leu Lys Pro Glu Asn Val Leu Ile Ser Lys Glu Gly  
 385 390 395 400  
 Ile Cys Lys Leu Thr Asp Phe Gly Ile Ser Asp Trp Tyr His Val Ile  
 405 410 415  
 Pro His Asp Tyr Thr Ser Pro Val Lys Thr Cys Gln Gly Met Ile Gly  
 420 425 430  
 Ser Pro Pro Tyr Thr Pro Pro Glu Val Met Tyr Phe Asp Ala Lys Lys  
 435 440 445  
 His Tyr Pro Glu Lys Phe Gln Lys Pro Tyr Asn Pro Leu Ala Met Asp  
 450 455 460  
 Ser Tyr Ala Leu Gly Ile Met Leu Ile Thr Met Ile Asn Asn Ile Ile  
 465 470 475 480  
 Pro Phe Ile Asp Ser Cys Asn Thr Asp Ala Arg Phe Arg Glu Phe Glu  
 485 490 495  
 Val Ser Tyr Asp Asn Phe Ile Asn His Gln Asn Pro His Phe Arg Asp  
 500 505 510  
 Lys Gly Cys His Lys Pro Gly Pro Gly Ser Glu Tyr Ser Leu Ala Arg  
 515 520 525

100

Asn Phe Lys Asn Thr Asp Ala Thr Arg Ile Ala Trp Arg Leu Ala Asp  
530 535 540

Pro Asn Pro Ala Thr Arg Tyr Thr Met Asp Asp Leu Phe Asn Asp Pro  
545 550 555 560

Phe Phe Gln Gln Ile Glu Thr Cys Val Glu Pro Asn Asp Asp Asp Leu  
565 570 575

Val Arg Val Pro Glu Leu Arg Lys Ser Thr Ser Thr Asn Asp Phe Ser  
580 585 590

Glu Asn Ser Leu Asp Ala Pro His Asp Gln Glu Val Ile His Thr Ser  
595 600 605

Asn Pro Phe Leu Lys Lys Glu Thr Leu Thr Ser Lys Pro Arg Ser Met  
610 615 620

Leu Glu Ile Ala Glu Ser Pro Ser Leu Lys Gln Lys Ser Lys Val Lys  
625 630 635 640

Asp Ser Ala Lys Thr Lys Thr His Asp Val Gly Asp Glu Gly Gly Asn  
645 650 655

Glu Ser Thr Lys Pro Lys Gln Gln Asp Lys Lys Glu Asn Leu Lys Lys  
660 665 670

Asp Glu Val Lys Asn Gly Asp Lys Asp Lys Val Ile Glu Glu Ala Thr  
675 680 685

Thr Thr Asn Val Asp Ser Ile Leu Glu Lys Pro Thr Pro Thr Ser Thr  
690 695 700

Lys Val Glu Asp Asn Leu Ser Glu Asp Asp Ser Thr Met Lys Glu Leu  
705 710 715 720

Lys Ser Met Leu Asn Ser Thr Pro Thr Thr Pro Thr His Asn Gly Pro  
725 730 735

Thr Pro Leu Pro Ala Lys Ala Gly Thr Gln Leu Asp Lys Arg Met Ser  
740 745 750

Asp Leu Ser Leu Lys Ser Glu Thr Pro Ala Ser Thr Lys Asn Phe Ser  
755 760 765

Ala Pro Asn Val Ser Ser Ser Asn Ser Leu Arg Ser Leu Gly Ser  
770 775 780

Pro Ser Val Ser Ser Ser Lys Lys Lys Val Ile His His His Leu  
785 790 795 800

Asp Ile Thr Asn Ser Val Thr Asn Met Ser Ser Val Ser Ala Phe Ile  
805 810 815

Ser Arg

&lt;210&gt; 36

&lt;211&gt; 603

&lt;212&gt; PRT

<213> *Saccharomyces cerevisiae*

&lt;400&gt; 36

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Thr | Gly | Met | Asn | Asp | Asn | Asn | Ala | Ala | Ile | Pro | Gln | Gln | Thr | Pro |
| 1   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

5

10

15

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Lys | His | Ala | Leu | Ser | Ser | Lys | Val | Met | Gln | Leu | Phe | Arg | Ser | Gly |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

20

25

30

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Arg | Ser | Ser | Arg | Gln | Gly | Lys | Ala | Ser | Ser | Asn | Ile | Gln | Pro | Pro |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

35

40

45

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Asn | Ile | Asn | Thr | Asn | Val | Pro | Ser | Ala | Ser | Lys | Ser | Ala | Lys | Phe |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

50

55

60

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Leu | His | Thr | Pro | Thr | Thr | Ala | Thr | Pro | Arg | Val | Val | Ser | Asn | Pro |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

65

70

75

80

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Asn | Thr | Ala | Gly | Val | Ser | Lys | Pro | Gly | Met | Tyr | Met | Pro | Glu | Tyr |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

85

90

95

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Gln | Ser | Ala | Ser | Pro | Ser | His | Ser | Ser | Ser | Ala | Ser | Leu | Asn |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

100

105

110

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | His | Ile | Asp | Ile | Asn | Thr | Ser | Lys | Ser | Ser | Ser | Ala | Ala | Ser | Leu |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

115

120

125

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Ser | Ser | Val | Ser | Ala | Leu | Ser | Leu | Ser | Pro | Thr | Ser | Ala | Ile | Asn |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

130

135

140

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Ser | Ser | Lys | Ser | Leu | Ser | Pro | Lys | Phe | Ser | His | His | Ser | Asn | Ser |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

145

150

155

160

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Thr | Ala | Ile | Thr | Pro | Ala | Pro | Thr | Pro | Thr | Ala | Ser | Asn | Ile | Asn |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

165

170

175

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Val | Asn | Lys | Ile | Thr | Asn | Thr | Ser | Ala | Pro | Ile | Cys | Gly | Arg | Phe |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

180

185

190

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Val | His | Lys | Asp | Gly | Thr | His | Glu | His | His | Leu | Lys | Asn | Ala | Lys |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

195

200

205

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Gln | Glu | Lys | Leu | Ser | Thr | Met | Ile | Lys | Asn | Met | Val | Gly | Ala | Ser |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

210

215

220

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Leu | Arg | Gly | Glu | Ala | Lys | Ser | Ala | Val | Pro | Asp | Ile | Ile | Met | Asp |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

225

230

235

240

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Lys | Thr | Thr | Leu | Lys | Ser | Asn | Lys | Asn | Pro | Pro | Thr | Leu | Phe | Ala |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

245

250

255

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Phe | Met | Lys | Gln | Val | Val | Asp | Met | Asp | Asp | Lys | Tyr | Pro | Glu | Gly |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

260

265

270

Ala Pro Thr Ser Gly Ala Leu Asn Cys Pro Glu Arg Asp Ile Tyr Arg  
 275 280 285  
 Ser Asp Gln Lys Asp Ser Lys Asn Asn Thr His Asn Ile Thr Thr Thr  
 290 295 300  
 Lys Lys Asp Arg Gln Cys Phe Ala Glu Lys Tyr Gly Arg Cys Gln Glu  
 305 310 315 320  
 Val Leu Gly Lys Gly Ala Phe Gly Val Val Arg Ile Cys Gln Lys Lys  
 325 330 335  
 Asn Val Ser Ser Gln Asp Gly Asn Lys Ser Glu Lys Leu Tyr Ala Val  
 340 345 350  
 Lys Glu Phe Lys Arg Arg Thr Ser Glu Ser Ala Glu Lys Tyr Ser Lys  
 355 360 365  
 Arg Leu Thr Ser Glu Phe Cys Ile Ser Ser Ser Leu His His Thr Asn  
 370 375 380  
 Ile Val Thr Thr Leu Asp Leu Phe Gln Asp Ala Lys Gly Glu Tyr Cys  
 385 390 395 400  
 Glu Val Met Glu Tyr Cys Ala Gly Gly Asp Leu Phe Thr Leu Val Val  
 405 410 415  
 Ala Ala Gly Lys Leu Glu Tyr Met Glu Ala Asp Cys Phe Phe Lys Gln  
 420 425 430  
 Leu Ile Arg Gly Val Val Tyr Met His Glu Met Gly Val Cys His Arg  
 435 440 445  
 Asp Leu Lys Pro Glu Asn Leu Leu Leu Thr His Asp Gly Val Leu Lys  
 450 455 460  
 Ile Thr Asp Phe Gly Asn Ser Glu Cys Phe Lys Met Ala Trp Glu Lys  
 465 470 475 480  
 Asn Ile His Leu Ser Gly Gly Val Cys Gly Ser Ser Pro Tyr Ile Ala  
 485 490 495  
 Pro Glu Glu Tyr Ile Lys Glu Glu Phe Asp Pro Arg Pro Val Asp Ile  
 500 505 510  
 Trp Ala Cys Gly Val Ile Tyr Met Ala Met Arg Thr Gly Arg Gln Leu  
 515 520 525  
 Trp Ser Ser Ala Glu Lys Asp Asp Pro Phe Tyr Met Asn Tyr Leu Lys  
 530 535 540  
 Gly Arg Lys Glu Lys Gly Gly Tyr Glu Pro Ile Glu Ser Leu Lys Arg  
 545 550 555 560  
 Ala Arg Cys Arg Asn Val Ile Tyr Ser Met Leu Asp Pro Val Pro Tyr  
 565 570 575

Arg Arg Ile Asn Gly Lys Gln Ile Leu Asn Ser Glu Trp Gly Arg Glu  
 580 585 590  
 Ile Lys Cys Cys His Asn Gly Arg Ala Leu Lys  
 595 600

<210> 37  
 <211> 620  
 <212> PRT  
 <213> *Saccharomyces cerevisiae*

<400> 37  
 Met Val Lys Glu Thr Pro Leu His Ser Ser Ser Ser Thr Ser Leu Ser  
 1 5 10 15

Ser Leu Phe Arg Pro Thr Lys Leu Lys Asn Leu Ser Ala Lys Ile Phe  
 20 25 30

Asn Gly Gly Asn Gln Ser Tyr Ser Lys Thr Asp Asp Val Ser Arg  
 35 40 45

Ser Ser Ser Arg Ser Ser Lys Lys Asn Thr Asp Ser Asp Gln Glu Asp  
 50 55 60

Gln Ile Lys Tyr Asn Lys Pro Asn Asp Arg Arg Ser Thr Ile Gly Lys  
 65 70 75 80

Ser Pro Gln Gly Asn Gly Ala Leu Ser Lys Glu Ser His Val Val Ala  
 85 90 95

Ser Ser Thr Leu Thr Gly Ile Ser Pro Thr Ser Ala Lys Lys Ala Pro  
 100 105 110

Ile Asp Tyr Ser Pro Ser Arg Pro Leu Pro Asn Asn His Asn Pro Val  
 115 120 125

Arg Thr Gly His Thr Val Pro His Leu Pro His Ser Ile His Asn Pro  
 130 135 140

Ile Asn Tyr Ile His Gln Gly Ser Lys Asp Ala Phe His His Pro His  
 145 150 155 160

Pro Val Arg Ser Thr Ala His Ser Asn Ile Ser Thr Val Ser Ser Ala  
 165 170 175

Lys Ser Asp Thr Pro Ser Ser Asn Leu Ser Tyr Gln Ala His Met His  
 180 185 190

Pro Val Glu Ile Leu Gln Lys Gln Ile Glu Asp Lys His Phe Met Asp  
 195 200 205

Ser Gln Ala Ser Thr Pro Gly Ser Val Glu Leu Gln His Asn Ser Ser  
 210 215 220

Ser Gly Ser Asp Asp Thr Ser Ser Arg Lys Lys Lys Ser Leu Arg Leu  
 225 230 235 240

Thr Arg Phe Phe Lys Lys Ile His Asn Asp Tyr His Asn Asn His His  
 245 250 255  
 His His His His His Asn Arg Gly Ser Thr Pro Thr Lys Pro Lys Leu  
 260 265 270  
 Asn Leu Asn Thr Asn Glu Asn Ile Val Glu Ser Asn Gly Lys Ala Leu  
 275 280 285  
 Tyr Glu Thr Asp Asn Pro Val Glu Leu Leu Glu Lys Tyr Gly Ile Pro  
 290 295 300  
 Gly Arg Lys Leu Gly Glu Gly Ala Ser Gly Ser Val Ser Val Val Glu  
 305 310 315 320  
 Arg Thr Asp Gly Lys Leu Phe Ala Cys Lys Met Phe Arg Lys Pro His  
 325 330 335  
 Leu Asn Asn Glu Gly Thr Asn Gln Ser Gln Leu Ala Asn Tyr Ser Lys  
 340 345 350  
 Lys Val Thr Thr Glu Phe Cys Ile Gly Ser Thr Leu His His Glu Asn  
 355 360 365  
 Ile Val Glu Thr Leu Asp Met Leu Thr Glu Gly Asp Thr Tyr Leu Leu  
 370 375 380  
 Val Met Glu Tyr Ala Pro Tyr Asp Phe Phe Asn Leu Val Met Ser Asn  
 385 390 395 400  
 Leu Met Thr Gln Asp Glu Val Asn Cys Tyr Phe Lys Gln Leu Cys His  
 405 410 415  
 Gly Val Asn Tyr Leu His Ser Met Gly Leu Ala His Arg Asp Leu Lys  
 420 425 430  
 Leu Asp Asn Cys Val Val Thr Lys Asp Gly Ile Leu Lys Leu Ile Asp  
 435 440 445  
 Phe Gly Ser Ala Val Val Phe Gln Tyr Pro Tyr Glu Asp Thr Ile Val  
 450 455 460  
 Lys Ser His Gly Ile Val Gly Ser Asp Pro Tyr Leu Ala Pro Glu Leu  
 465 470 475 480  
 Leu Lys Gln Thr Ser Tyr Asp Pro Arg Val Ala Asp Val Trp Ser Ile  
 485 490 495  
 Ala Ile Ile Phe Tyr Cys Met Val Leu Lys Arg Phe Pro Trp Lys Ala  
 500 505 510  
 Pro Lys Lys Ser Phe Asn Ser Phe Arg Leu Phe Thr Glu Glu Pro Glu  
 515 520 525  
 Asp Glu Asp Asp Ile Val Arg Gly Pro Asn Lys Ile Leu Arg Leu Leu  
 530 535 540

Pro Arg His Ser Arg Thr Ile Ile Gly Arg Met Leu Ala Leu Glu Pro  
 545 550 555 560  
 Lys Gln Arg Val Leu Met Asn Asp Val Val Lys Asp Asp Trp Leu Val  
 565 570 575  
 Ser Val Pro Ser Cys Glu Val Asp Pro Thr Ser Gly Asp Leu Val Glu  
 580 585 590  
 Lys Pro Lys Asn His Lys His His Leu Val Thr Glu Glu Glu Leu Asn  
 595 600 605  
 Glu Leu Thr Lys Gln His Gly Asn Lys Asp Ser Asn  
 610 615 620

<210> 38  
 <211> 759  
 <212> PRT  
 <213> *Saccharomyces cerevisiae*

<400> 38  
 Met Pro Asn Leu Leu Ser Arg Asn Pro Phe His Gly His His Asn Asp  
 1 5 10 15  
 His His His Asp Arg Glu Asn Ser Ser Asn Asn Pro Pro Gln Leu Ile  
 20 25 30  
 Arg Ser Ser Lys Ser Phe Leu Asn Phe Ile Gly Arg Lys Gln Ser Asn  
 35 40 45  
 Asp Ser Leu Arg Ser Glu Lys Ser Thr Asp Ser Met Lys Ser Thr Thr  
 50 55 60  
 Thr Thr Thr Asn Tyr Thr Thr Asn Leu Asn Asn Asn Thr His Ser  
 65 70 75 80  
 His Ser Asn Ala Thr Ser Ile Ser Thr Asn Asn Tyr Asn Asn Asn Tyr  
 85 90 95  
 Glu Thr Asn His His His Asn Ile Ser His Gly Leu His Asp Tyr Thr  
 100 105 110  
 Ser Pro Ala Ser Pro Lys Gln Thr His Ser Met Ala Glu Leu Lys Arg  
 115 120 125  
 Phe Phe Arg Pro Ser Val Asn Lys Lys Leu Ser Met Ser Gln Leu Arg  
 130 135 140  
 Ser Lys Lys His Ser Thr His Ser Pro Pro Pro Ser Lys Ser Thr Ser  
 145 150 155 160  
 Thr Val Asn Leu Asn Asn His Tyr Arg Ala Gln His Pro His Gly Phe  
 165 170 175  
 Thr Asp His Tyr Ala His Thr Gln Ser Ala Ile Pro Pro Ser Thr Asp  
 180 185 190

Ser Ile Leu Ser Leu Ser Asn Asn Ile Asn Ile Tyr His Asp Asp Cys  
 195 200 205  
 Ile Leu Ala Gln Lys Tyr Gly Lys Leu Gly Lys Leu Leu Gly Ser Gly  
 210 215 220  
 Ala Gly Gly Ser Val Lys Val Leu Val Arg Pro Thr Asp Gly Ala Thr  
 225 230 235 240  
 Phe Ala Val Lys Glu Phe Arg Pro Arg Lys Pro Asn Glu Ser Val Lys  
 245 250 255  
 Glu Tyr Ala Lys Lys Cys Thr Ala Glu Phe Cys Ile Gly Ser Thr Leu  
 260 265 270  
 His His Pro Asn Val Ile Glu Thr Val Asp Val Phe Ser Asp Ser Lys  
 275 280 285  
 Gln Asn Lys Tyr Tyr Glu Val Met Glu Tyr Cys Pro Ile Asp Phe Phe  
 290 295 300  
 Ala Val Val Met Thr Gly Lys Met Ser Arg Gly Glu Ile Asn Cys Cys  
 305 310 315 320  
 Leu Lys Gln Leu Thr Glu Gly Val Lys Tyr Leu His Ser Met Gly Leu  
 325 330 335  
 Ala His Arg Asp Leu Lys Leu Asp Asn Cys Val Met Thr Ser Gln Gly  
 340 345 350  
 Ile Leu Lys Leu Ile Asp Phe Gly Ser Ala Val Val Phe Arg Tyr Pro  
 355 360 365  
 Phe Glu Asp Gly Val Thr Met Ala His Gly Ile Val Gly Ser Asp Pro  
 370 375 380  
 Tyr Leu Ala Pro Glu Val Ile Thr Ser Thr Lys Ser Tyr Asp Pro Gln  
 385 390 395 400  
 Cys Val Asp Ile Trp Ser Ile Gly Ile Ile Tyr Cys Cys Met Val Leu  
 405 410 415  
 Lys Arg Phe Pro Trp Lys Ala Pro Arg Asp Ser Asp Asp Asn Phe Arg  
 420 425 430  
 Leu Tyr Cys Met Pro Asp Asp Ile Glu His Asp Tyr Val Glu Ser Ala  
 435 440 445  
 Arg His His Glu Glu Leu Leu Lys Glu Arg Lys Glu Lys Arg Gln Arg  
 450 455 460  
 Phe Leu Asn His Ser Asp Cys Ser Ala Ile Asn Gln Gln Gln Pro Ala  
 465 470 475 480  
 His Glu Ser Asn Leu Lys Thr Val Gln Asn Gln Val Pro Asn Thr Pro  
 485 490 495

Ala Ser Ile Gln Gly Lys Ser Asp Asn Lys Pro Asp Ile Val Glu Glu  
 500 505 510  
 Glu Thr Glu Glu Asn Lys Glu Asp Asp Ser Asn Asn Asp Lys Glu Ser  
 515 520 525  
 Thr Pro Asp Asn Asp Lys Glu Ser Thr Ile Asp Ile Lys Ile Ser Lys  
 530 535 540  
 Asn Glu Asn Lys Ser Thr Val Val Ser Ala Asn Pro Lys Lys Val Asp  
 545 550 555 560  
 Ala Asp Ala Asp Ala Asp Cys Asp Ala Asn Gly Asp Ser Asn Gly Arg  
 565 570 575  
 Val Asp Cys Lys Ala Asn Ser Asp Cys Asn Asp Lys Thr Asp Cys Asn  
 580 585 590  
 Ala Asn Asn Asp Cys Ser Asn Glu Ser Asp Cys Asn Ala Lys Val Asp  
 595 600 605  
 Thr Asn Val Asn Thr Ala Ala Asn Ala Asn Pro Asp Met Val Pro Gln  
 610 615 620  
 Asn Asn Pro Gln  
 625 630 635 640  
 Gln Gln Gln Gln Gln His His His His Gln His Gln Asn Gln  
 645 650 655  
 Asp Lys Ala His Ser Ile Ala Ser Asp Asn Lys Ser Ser Gln Gln His  
 660 665 670  
 Arg Gly Pro His His Lys Lys Ile Ile His Gly Pro Tyr Arg Leu Leu  
 675 680 685  
 Arg Leu Leu Pro His Ala Ser Arg Pro Ile Met Ser Arg Ile Leu Gln  
 690 695 700  
 Val Asp Pro Lys Lys Arg Ala Thr Leu Asp Asp Ile Phe Asn Asp Glu  
 705 710 715 720  
 Trp Phe Ala Ala Ile Ala Ala Cys Thr Met Asp Ser Lys Asn Lys Val  
 725 730 735  
 Ile Arg Ala Pro Gly His His His Thr Leu Val Arg Glu Glu Asn Ala  
 740 745 750  
 His Leu Glu Thr Tyr Lys Val  
 755

<210> 39  
 <211> 636  
 <212> PRT  
 <213> Schizosaccharomyces pombe

<400> 39  
Met Gly Glu Lys Asp Lys Leu His Glu Ile Ser Ser Lys Phe Ala Ser  
1 5 10 15  
Leu Gly Leu Gly Ser Leu Lys Ser Thr Pro Lys Ala Arg Glu Thr Thr  
20 25 30  
Glu Pro Pro Pro Pro Ser Ser Gln Gln Pro Pro Ser Thr Pro Asn Gly  
35 40 45  
Lys Glu Ala Ala Ser Pro Ser Ala Leu Lys Gln Asn Val Arg Pro Ser  
50 55 60  
Leu Asn Ser Val Gln Gln Thr Pro Ala Ser Ile Asp Ala Val Ala Ser  
65 70 75 80  
Ser Ser Asn Val Ser Leu Gln Ser Gln Gln Pro Leu Ser Lys Pro Val  
85 90 95  
Val Ser Ser Lys Pro Asn Gln Thr Thr Ala Met Pro Pro Pro Ser Asn  
100 105 110  
Asn Pro Ser Arg His Val Ser Ser Thr Ser Asn Lys Pro Ala Ala Val  
115 120 125  
Ser Pro Asn Pro Ala Ala His His Ala Glu Leu Pro Ser Gly Ser Val  
130 135 140  
Pro Pro Ser Ala Ser Val Ser Arg Ala Asn Ser Thr Ala Thr Thr Thr  
145 150 155 160  
Pro His Lys Ala Gly Val Val Ser Asn Pro Ala Ala Ala Asn Val His  
165 170 175  
Val Leu Ser Val Ala Ala Ser Pro Asn Pro Ser Thr Pro Ser Asn Gly  
180 185 190  
Pro Ala Pro Val Ser Thr Thr Ala Thr Pro Ser Arg Asn Pro Val Thr  
195 200 205  
Arg Leu Gln Arg Ile Phe Ser Gln Asn Ser Val Ser Arg Gln Asn Ser  
210 215 220  
Arg Thr Gly Arg Gly Ala Ala Val Ala Asn Thr Glu Glu Thr Asn Ser  
225 230 235 240  
Thr Gly Gly Ser Glu Thr Gly Gly Ala Ala Asn Ser Ser Ser Thr Ser  
245 250 255  
Asn Pro Ser Ser Ala Lys Trp Ser Arg Phe Thr Val Tyr Asp Asp Ala  
260 265 270  
Ser His Thr His Gln Leu Arg Pro Ala Arg Arg Gln Glu Lys Leu Gly  
275 280 285  
Lys Met Leu Lys Asp Phe Leu Ala Gly Asn Ser Lys Lys Arg Glu Glu  
290 295 300

Glu Arg Ile Ala Lys Glu Ala Ala Asp Ala Gln His Gln Leu Ser Leu  
 305 310 315 320

Val Gln Ser Trp Ile Asn Gly Tyr Gly Gln Glu Lys Leu Ala Asp Lys  
 325 330 335

Lys Asp Pro Ala Lys Val Ser Ala Ser Phe Val Glu Lys Tyr Gly Arg  
 340 345 350

Cys Gln Glu Val Ile Gly Arg Gly Ala Phe Gly Val Val Arg Ile Ala  
 355 360 365

His Lys Val Asp Pro Gln Asn Ser Gly Ser Glu Thr Leu Tyr Ala Val  
 370 375 380

Lys Glu Phe Arg Arg Lys Pro Ala Glu Ser Gln Lys Lys Tyr Thr Lys  
 385 390 395 400

Arg Leu Thr Ser Glu Phe Cys Ile Ser Ser Ser Leu Arg His Pro Asn  
 405 410 415

Val Ile His Thr Leu Asp Leu Ile Gln Asp Gly Lys Gly Asp Tyr Cys  
 420 425 430

Glu Val Met Glu Leu Cys Ser Gly Gly Asp Leu Tyr Thr Leu Ile Met  
 435 440 445

Ala Ala Gly Arg Leu Glu Pro Met Glu Ala Asp Cys Phe Phe Lys Gln  
 450 455 460

Leu Met Arg Gly Val Asp Tyr Leu His Asp Met Gly Val Ala His Arg  
 465 470 475 480

Asp Leu Lys Pro Glu Asn Leu Leu Thr Val Ser Gly Ser Leu Lys  
 485 490 495

Ile Thr Asp Phe Gly Asn Gly Glu Cys Phe Arg Met Ala Trp Glu Lys  
 500 505 510

Glu Ala His Met Thr Cys Gly Leu Cys Gly Ser Ala Pro Tyr Ile Ala  
 515 520 525

Pro Glu Glu Tyr Thr Glu Ser Glu Phe Asp Pro Arg Ala Val Asp Val  
 530 535 540

Trp Ala Cys Gly Val Ile Tyr Met Ala Met Arg Thr Gly Arg His Leu  
 545 550 555 560

Trp Arg Val Ala Lys Lys Ser Glu Asp Glu Tyr Tyr Ser Arg Tyr Leu  
 565 570 575

Met Asp Arg Lys Asn Glu Ser Gly Tyr Glu Pro Ile Glu Met Leu Glu  
 580 585 590

Arg Ser Arg Cys Arg Asn Thr Leu Tyr Asn Ile Leu His Pro Asn Pro  
 595 600 605

Thr Tyr Arg Leu Thr Ala Lys Gln Ile Met Lys Ser Glu Trp Val Arg  
 610 615 620  
 Ser Ile Thr Leu Cys Glu Ala Gly Asn Ala Gly Leu  
 625 630 635  
  
 <210> 40  
 <211> 650  
 <212> PRT  
 <213> Schizosaccharomyces pombe  
  
 <400> 40  
 Met Ser Val Thr Pro Pro Asn Val Gln Phe Asn Leu Asn Gly Asp Ser  
 1 5 10 15  
  
 Asp His Lys Ser Asp Asn Ser Ser Ser Leu Glu Asn Lys Leu Asp  
 20 25 30  
  
 Thr Glu Leu Lys Ile Thr Ser Pro Pro Arg Asn Pro Pro Gln Arg Leu  
 35 40 45  
  
 His Pro Val Asp Phe Ser Glu His Ala Asp Thr Asp Asp Asp Met Asn  
 50 55 60  
  
 His Pro Leu Pro Arg Val Gln Ser Pro Val His Ile Lys Asn His Ile  
 65 70 75 80  
  
 Asp Pro Lys Leu Ala Glu Asp Arg Tyr Arg Ser Ser Ala Ala Arg His  
 85 90 95  
  
 Phe Glu Pro Ile Ser Ile Pro Pro Ser Ala Ile Thr Ser Glu Asp Glu  
 100 105 110  
  
 Asp Asp Tyr His Gly Ser Ala Asn Ser Ser Thr Val Leu Pro Pro Arg  
 115 120 125  
  
 Thr Glu Asn Ala Leu His Ala Ala Ser Pro Lys Pro Ser Gly Ser Thr  
 130 135 140  
  
 Gly Tyr Thr Ser Pro Ala Leu Ser Gln Asn Ser Gly Ser Gly Glu  
 145 150 155 160  
  
 Gly Glu Ser Asp Glu Gly Ser Phe Asn Thr Gln His His Arg Ser Pro  
 165 170 175  
  
 Ile Phe Gln Ala Tyr Pro Ser Ser Glu Asp Leu Val Gly Asp Pro Asn  
 180 185 190  
  
 Asp Pro Tyr Arg Arg Thr Arg Ala Pro Ile Lys Thr Asn Pro His  
 195 200 205  
  
 Asp Ile Pro Ser Gln Phe Ile Phe Arg Lys Leu Gly Leu His His Gly  
 210 215 220  
  
 Lys His Gly His His Gly His Ser Gly Ser Leu Ser Leu Lys Ser Leu  
 225 230 235 240

Val Pro Asn His His Asp Lys His Asp Lys His Asp Lys His Glu Lys  
 245 250 255  
 His His Ser Ser Leu Asp Leu Arg Arg Phe Phe Lys Ser His Gln Lys  
 260 265 270  
 Thr Asp Lys Glu Lys Lys Pro Ser Val Ser Lys Ser Lys Ser Ala  
 275 280 285  
 Asn Leu Gln Asp Asp His Phe Gly Leu Phe Lys Lys Tyr Gly Lys Phe  
 290 295 300  
 Gly Arg Met Leu Gly Ser Gly Ala Gly Gly Ser Val Arg Ile Met Lys  
 305 310 315 320  
 Arg Ser Ser Asp Gly Lys Ile Phe Ala Val Lys Glu Phe Arg Ala Arg  
 325 330 335  
 Arg Pro Thr Glu Thr Glu Arg Glu Tyr Ala Arg Lys Val Thr Ala Glu  
 340 345 350  
 Phe Cys Ile Gly Ser Ala Leu His His Thr Asn Ile Ile Glu Thr Leu  
 355 360 365  
 Asp Ile Val Glu Glu Asn Lys Lys Phe Tyr Glu Val Met Glu Tyr Ala  
 370 375 380  
 Pro Tyr Asp Met Phe Ser Ile Val Met Ser Gly Lys Met Thr Met Pro  
 385 390 395 400  
 Glu Val Tyr Cys Cys Phe Lys Gln Leu Leu Ser Gly Val Ala Tyr Leu  
 405 410 415  
 His Ser Met Gly Leu Ala His Arg Asp Leu Lys Leu Asp Asn Leu Val  
 420 425 430  
 Val Asp Ser Asn Cys Phe Val Lys Ile Ile Asp Phe Gly Ser Ala Val  
 435 440 445  
 Val Phe Lys Tyr Pro Phe Glu Ala Asp Ile Val Glu Ala Thr Gly Val  
 450 455 460  
 Val Gly Ser Asp Pro Tyr Leu Ala Pro Glu Thr Leu Val Arg Lys Leu  
 465 470 475 480  
 Tyr Asp Pro Arg Ala Val Asp Ile Trp Ser Ser Ala Ile Ile Phe Cys  
 485 490 495  
 Cys Met Ala Leu Arg Arg Phe Pro Trp Lys Tyr Pro Lys Leu Ser Asp  
 500 505 510  
 Asn Ser Phe Arg Leu Phe Cys Met Lys Gln Pro Ser Asn Asp Ala Glu  
 515 520 525  
 Ser Pro Ser Asp Ile Leu Ala Asp Ile Lys Lys Gln Arg Leu Val Glu  
 530 535 540

Gln Gly Cys Glu Pro Ile Arg Lys Thr Asp Glu Ser His Ser Pro Asn  
 545 550 555 560  
 Ser Lys Thr Asp Asn Ser Ser Thr His Lys Gln Glu Leu Tyr Gly Pro  
 565 570 575  
 Trp Arg Leu Leu Arg Leu Leu Pro Arg Glu Thr Arg Ala Val Ile Ala  
 580 585 590  
 His Met Leu Glu Leu Asp Pro Val Lys Arg Tyr Asp Ile His Arg Val  
 595 600 605  
 Phe Ala Asp Asn Trp Ile Asn Asp Ile Ser Met Cys His Met Glu Asn  
 610 615 620  
 Gly Lys Val Ile His Ser Pro Thr His Val His Asn Leu Val Ala Ser  
 625 630 635 640  
 Glu Glu Ser Pro Ala Pro Pro Ala Lys His  
 645 650

<210> 41  
 <211> 812  
 <212> PRT  
 <213> Candida albicans

<400> 41  
 Met Thr Lys Glu His Ser Ile Arg Asn Ile Phe Lys Lys Asp Lys Thr  
 1 5 10 15  
 Pro Asp Asn Gly Ser Ala Thr Ala Thr Pro Ser Ser Ser His Thr Gly  
 20 25 30  
 Leu Ser Lys Leu Phe His Lys Glu Ser Lys Pro Ile Thr Pro Pro Met  
 35 40 45  
 Lys Arg Thr Pro Ser Val Ser Ser Leu Lys Arg Arg Asn Thr Asn Pro  
 50 55 60  
 Ser Gln Thr Ser Gly Ile Ser Leu Asn His Asn His His His Gln  
 65 70 75 80  
 Asp Ser Gln Asn His Asn Asp Ala Thr Thr Ser Gly Gly Asn Ile His  
 85 90 95  
 Ser Ser Thr Pro Val Asn Arg Ser Arg Ser Asn Ser Asp Arg Leu Gly  
 100 105 110  
 His Val Pro Pro Thr Gly Arg Lys Val Leu Ser Lys Ala Glu Thr Phe  
 115 120 125  
 Thr His Leu Gln Gln Leu Asp Thr Arg Asn Ala Ala Lys Asn Gln Leu  
 130 135 140  
 Arg Asn His Arg Ile Pro Ser Asn His Leu Ser Ser Pro Leu Ser Ala  
 145 150 155 160

Ala Pro His Ser Asp Lys Ile Val Tyr Asn Pro Tyr Gly Leu Asn Lys  
                   165                  170                  175  
  
 Thr Ala Thr Gln Glu Arg Pro Lys Asn Thr Ser Phe Tyr Leu Ser Gly  
                   180                  185                  190  
  
 Val Asn Asp Gly Glu Arg Val Leu Ser Asn Pro Val Ala Ser Pro Asn  
                   195                  200                  205  
  
 Asp Tyr Leu Pro Ala Glu Leu Gln Gln His Val Asn Leu Leu Glu  
                   210                  215                  220  
  
 Asp Phe Glu Ile Asp Val Gly Thr Lys Lys Leu Gly Asp Gly Gly Ser  
                   225                  230                  235                  240  
  
 Ser Asp Val Arg Ile Ile Asn Ser Cys His His Lys Lys Asp Leu Tyr  
                   245                  250                  255  
  
 Ala Leu Lys Lys Phe Thr Leu Leu Ser Lys Glu Thr Asp Glu Asp Phe  
                   260                  265                  270  
  
 Tyr Lys Arg Val Ser Glu Glu Tyr Lys Ile His Arg Lys Ala Ala Ile  
                   275                  280                  285  
  
 Ser Arg His Val Val Asp Ala Phe Ala Ile Leu Arg Ile Gln Ser Gln  
                   290                  295                  300  
  
 Ser Asn Leu Thr Arg Gly Trp Gly Met Val Met Glu Phe Cys Gly Gly  
                   305                  310                  315                  320  
  
 Gly Asp Leu Phe Ser Val Ile Val Lys Pro Gly Trp Lys Ser Thr Pro  
                   325                  330                  335  
  
 Leu Ala Glu Lys Tyr Cys Leu Phe Lys Gln Ile Ala Tyr Gly Val Lys  
                   340                  345                  350  
  
 Phe Leu His Asp His Asp Ile Val His Arg Asp Leu Lys Pro Glu Asn  
                   355                  360                  365  
  
 Val Leu Leu Asp Ala Asn Gly Leu Ala Lys Leu Cys Asp Phe Gly Val  
                   370                  375                  380  
  
 Ser Glu Phe Gly His Glu Val Pro Glu Asp Phe Ser Ser Pro Val Lys  
                   385                  390                  395                  400  
  
 Leu Ser Thr Ala Tyr Val Gly Ser Pro Pro Tyr Ala Pro Pro Glu Val  
                   405                  410                  415  
  
 Met Leu Leu Lys Glu Lys Ser Ser Thr Glu Ile Lys Ala Phe Ala Tyr  
                   420                  425                  430  
  
 Asp Pro Phe Lys Met Asp Cys Trp Gly Leu Gly Met Leu Leu Phe Cys  
                   435                  440                  445  
  
 Leu Val Tyr Gly Gly Val Pro Phe Gln Gln Ser Ser Pro Asn Asp His  
                   450                  455                  460

Ala Phe Arg Asp Tyr Lys Phe Ser His Lys Arg Phe Cys Thr Asp His  
 465 470 475 480

His Thr Phe Lys Ser Asn Gln Gly Tyr Pro Arg Gly Pro Gly Ser Glu  
 485 490 495

Phe Lys Leu Ala Ala Lys Phe Glu Asn Asn Gly Ala Ser Arg Val Ala  
 500 505 510

Trp Lys Leu Cys Asp Pro Ser Glu Asn Thr Arg Tyr Thr Met Asp Met  
 515 520 525

Leu Phe Asp Asp Pro Trp Phe Gln Ser Val Glu Met Cys Ile Tyr Glu  
 530 535 540

Ser Pro Asp Gln Glu Val Asn Pro Phe Val Leu Pro Gly Thr Gly Glu  
 545 550 555 560

Asn Ile Asp Thr His Ser Val Ser Gly Tyr Ser Ser Val Asn Asn Ser  
 565 570 575

Gln Ala Pro Ser Arg Arg Gly Thr Phe Thr Ser Arg Pro Val Gly Ser  
 580 585 590

Gly Ala Gly Ser Gly Tyr Asn Ser His Asp Glu Ser Ser Asn Gly Leu  
 595 600 605

Ser Ser Ser Phe Arg Ser Met Leu Asp Leu Lys Asp Ile Pro Gln Lys  
 610 615 620

Ile Thr Lys Thr Asp Glu Pro Leu Pro Ser Asn Ser Ser Val His Ser  
 625 630 635 640

Asn Asp Ser Ser Ser Ala Arg Ala Lys Ser Lys Leu Asp His Pro Ser  
 645 650 655

Ser Pro Gly Ser Leu Leu Ser Pro Ser Thr Pro Ala Leu Gln Ser Ile  
 660 665 670

Pro Ala Asp Arg Val Ala Gln Thr Thr Ser Pro Ile Asn Ala Ser Leu  
 675 680 685

Pro Ala Val Glu Glu Ser Asp Ile Glu His Glu Ser Glu Ser Glu Ile  
 690 695 700

Gln Gly Asp Glu Thr Glu Ser Ser Gly Leu Gln Val Leu Pro Pro Ile  
 705 710 715 720

Asp Asp Val Val Ala Ala Ser Pro Ser Ser Leu Thr His Glu Pro Gln  
 725 730 735

Glu Gln Val Leu Asp Ser Val Glu Ser Cys Ile Ser Leu Pro Pro Asn  
 740 745 750

Arg Asp Gln Ala Phe Ala Gly Lys Asp Gly Glu Met Cys Ser Leu Val  
 755 760 765

Asp Leu Lys Pro Ala Ala Leu Lys Ser Ala Thr Asp Leu Gln Leu Gly  
 770 775 780  
 Ala Asp Gly Met Cys Asn Leu Gly Tyr Lys Ile Lys Lys His His His  
 785 790 795 800  
 Thr Glu Val Ser Asn Val Ser Asn Ser Ser Arg Arg  
 805 810

<210> 42  
 <211> 800  
 <212> PRT  
 <213> Candida albicans

<400> 42  
 Met Ser Ser Leu Thr Lys Leu Leu His Glu Ser Thr Ser Thr Leu Ala  
 1 5 10 15  
 Ser Pro Val Leu Ser Arg Asn Thr Ser Glu Val Thr Phe Lys Asp Gln  
 20 25 30  
 Gly Arg Arg Thr Pro Glu Ile Leu Asn Ile Ser Asp Thr Val Asp Ala  
 35 40 45  
 Lys Ser Pro Gly Ile Thr Ile Asp Val Ser Lys Pro Lys Pro Ser Pro  
 50 55 60  
 Ile Asp Thr Asp Gly Met Asn Val Glu Pro Gln Ala Val His Gly Phe  
 65 70 75 80  
 Asp Pro Ser Pro Asn Thr Lys Val Ser Phe Ser Ser Pro Phe Ser Pro  
 85 90 95  
 Thr Ser Pro Phe Thr Arg Gln Ser Ser Asn Ser Phe Ser Ser Asn Gln  
 100 105 110  
 Ala Phe Gln Asn Thr Arg Gly Ala Val Ala Ser Pro Arg Tyr Ile Lys  
 115 120 125  
 Asn Asn Ser Val Ser His Ser Ser Val Phe Met Gly Gly Glu Ser Leu  
 130 135 140  
 Ser Ser Ser Ile Pro Tyr Ser Ala Pro Gly Gly Arg Gly Asn Pro  
 145 150 155 160  
 Ala Ser His Ser Gly Asn Thr Gly Ser Leu Gln Arg Glu Asn Ser Phe  
 165 170 175  
 Ser Ser Leu Asn Thr Ser Asp Ser Asn Ser Ser Ala His Ile Pro Asn  
 180 185 190  
 Leu Pro Asn Gly Gln Pro Ile Asn Ser Ile His Ile Gln Ser Pro Gln  
 195 200 205  
 Val Ser Ala Ser Ser Ile Asp Ser Arg Phe Val Val Ser Lys Gln Arg  
 210 215 220

Ile Ala Gln Ala Gln Ala Gln Ser Leu Ser Ser Ser Gln Arg Ser  
 225 230 235 240

Asn Ser Gln Ser Gly Leu Ser Phe Phe Phe Ser Gln Lys Ser Lys Pro  
 245 250 255

Ala Val Lys Arg Asp Ser Thr Thr Asp Leu Gly Ala Phe Tyr Asn Asn  
 260 265 270

Ser Tyr Gln Asp Arg Asp Ala Pro Ile Val Ser Gly Ser Pro Asn Ser  
 275 280 285

Leu Ser Ser Ala Glu Ser Thr Val Ser Tyr Gly Ser Ser Ala Pro Thr  
 290 295 300

Arg His Asn Ser Met Ala Asn Leu Lys Arg Phe Phe Lys Lys Ser Thr  
 305 310 315 320

Pro Thr Thr Ser Gln Pro Val Gly Thr Ser Asn Leu Ser Ser Ser Leu  
 325 330 335

Arg Ser Ala Ser Ser Gly Ala Ser Gly Ala Met Asn Ile Pro Asn Ser  
 340 345 350

Leu Asn Gly Gln Thr Asn Asn Gly Tyr Gln Ser Pro Ser Ser Phe Ser  
 355 360 365

Ala Ser Thr Ser Asn Thr Ser Tyr Ser Gln Ser Pro Gly Thr Asn Ser  
 370 375 380

Ser Ser Val Thr Arg Ser Ser Thr Leu Gln Asn Lys Val Asn Tyr His  
 385 390 395 400

Glu Arg Arg Gln Ser Val Ser Gly Ile Val Asn Asn Ser Gln Gln Leu  
 405 410 415

Pro Phe Ser Lys Arg Tyr His Ser Lys Asn Ala Glu Ser Leu Gly Ala  
 420 425 430

Gly Ala Gly Gly Ser Val Arg Leu Leu Thr Arg Val Ser Asp Gly Leu  
 435 440 445

Thr Phe Ala Val Lys Glu Phe Arg Ala Lys Tyr Gln Asn Glu Ser Lys  
 450 455 460

Arg Asp Tyr Ala Lys Lys Ile Thr Gly Glu Tyr Cys Ile Gly Ser Thr  
 465 470 475 480

Leu Lys His Pro Asn Ile Ile Glu Thr Val Glu Ile Cys Tyr Glu Asn  
 485 490 495

Glu Arg Ile His Gln Val Met Glu Tyr Cys Asp Phe Asp Leu Phe Ala  
 500 505 510

Ile Val Met Ser Asn Lys Met Ser Arg Glu Glu Ile Asn Cys Cys Phe  
 515 520 525

Lys Gln Ile Leu Ala Gly Val His Tyr Leu His Ser Met Gly Leu Ala  
 530 535 540

His Arg Asp Leu Lys Leu Asp Asn Cys Val Ile Asp Lys Arg Gly Ile  
 545 550 555 560

Val Lys Ile Ile Asp Phe Gly Ser Ala Val Val Phe Ser Tyr Pro Phe  
 565 570 575

Thr Lys Thr Leu Ile Glu Ala Gln Gly Ile Val Gly Ser Asp Pro Tyr  
 580 585 590

Leu Ala Pro Glu Val Cys Val Phe Asn Lys Tyr Asp Pro Arg Pro Val  
 595 600 605

Asp Val Trp Ser Val Ala Ile Ile Tyr Cys Cys Met Met Leu Lys Lys  
 610 615 620

Phe Pro Trp Lys Val Pro Lys Leu Ser Asp Ser Ser Phe Lys Leu Phe  
 625 630 635 640

Ala Ser Arg Gly Glu Phe Ile Pro Ile Ser Glu Met Leu Lys Lys Thr  
 645 650 655

Pro Asn Asp Met Glu Lys Ser Asn Ser Asn Gly Ser Ser Gly Gly Gly  
 660 665 670

Leu Ser Asn Leu Glu Asp Ile Ser Glu Ala Leu Glu Asp Glu Ile Thr  
 675 680 685

Ala Gly Ala Lys Gln Lys Pro Ser Thr Thr Gly Gln Asn Gly Ala Thr  
 690 695 700

Ala Asn Gly Lys Asp His Thr Ser Ser Glu Thr Gly Ala Asn Arg Leu  
 705 710 715 720

Leu Leu Ala Leu Pro Glu Asp Cys Arg Arg Leu Ile Gly Arg Met Val  
 725 730 735

Glu Leu Ala Pro Ala Cys Arg Ile Thr Ile Asp Glu Val Leu Asn Asp  
 740 745 750

Ser Trp Leu Lys Ser Val Asn Met Cys Thr Val Glu Glu Ser Ser Pro  
 755 760 765

Gly Val Phe Glu Val Ile Lys Cys Glu Asp His Glu His Thr Gln Val  
 770 775 780

Asp Gln Ser Lys Ala His Ile Ala Ala Phe Glu Lys Asn Lys Lys Lys  
 785 790 795 800